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Enbridge Semi-Annual Report May 23, 2017 to November 22, 2017

DJ# 90-5-1-1-10099

January 18, 2018

Enbridge Consent Decree (United States v. Enbridge Energy et al Case 1:16-cv-914)

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Introduction

The Enbridge Defendants (collectively “Enbridge”) submit this Semi-Annual Report in electronic and hard copy form in accordance with Section IX, Reporting Requirements, of the Consent Decree entered in United States v. Enbridge Energy, Limited Partnership, et al., Civ. No. 1:16-cv-00914 (referred to herein as “Consent Decree,” “Decree,” or “CD”). Specifically, Paragraph 143 requires Enbridge to submit a Semi-Annual Report documenting Enbridge’s compliance with the Consent Decree for the reporting period from May 23, 2017 to November 22, 2017 no later than 240 days after the Consent Decree Effective Date (i.e., by January 18, 2018). As per Paragraph 150 of the Consent Decree, the Report is being served in accordance with Section XVI of the Consent Decree, and a copy is being supplied to the Independent Third Party.

This Semi-Annual Report addresses the requirements in Subsections VII.A-J of the Consent Decree that became due and/or were required to be complied with by Enbridge during the reporting period. Also addressed in this Report are deliverables required to be performed prior to the Effective Date of the Decree. Further, in accordance with Paragraph 144, the Report provides the information that is required to be submitted to the United States under Paragraphs 29, 31, 49, 96, and Subparagraph 110.c, which each have specific Semi-Annual Report requirements. Discharge information and post-incident reports required by Paragraphs 146 and 148 of the Consent Decree also are set forth in this Report.

This Semi-Annual Report is organized by Paragraph and Subparagraph number of the Consent Decree. The Report addresses on a Paragraph-by-paragraph basis each injunctive requirement of the Consent Decree that became due or for which reporting is required.

Enbridge has also enclosed appendices to this Semi-Annual Report, which provide further information on Enbridge’s compliance with the Consent Decree, and/or include documents that are required to be submitted to the United States under Section IX. The Table of Contents identifies each of these appendices.

Section A - Original US Line 6B

21. [Original US Line 6B]

The original Line 6B was permanently disconnected from the Enbridge system prior to the Effective Date and is inoperable. This has been achieved with two physical controls. The first method involves isolating the pipeline from all pump stations and terminals by disconnecting and removing small sections of piping. This prevents the use of any original Line 6B facilities from injecting hazardous products into the pipeline. The second method is the segmentation of the pipeline itself. Following the cleaning process of the original Line 6B the pipeline was segmented at numerous locations along its length. Small sections of mainline pipe were removed and capped to prevent water ingress and transfer. In its current state the original Line 6B is unable to transport any product, hazardous or otherwise.

Section B – Replacement of Line 3; Evaluation of Replacement of Line 10

22.a [Replacement of Line 3 in the United States]

Enbridge has been vigorously pursuing all avenues to complete the replacement of Line 3 as quickly as possible. The ability to advance the replacement project involves a coordinated effort by Enbridge to obtain all required approvals and permits in three states (ND, MN, and WI), as well as from federal agencies with jurisdiction over aspects of the replacement project. Over the past few years numerous public hearings, consultations, and regulatory proceedings have occurred as a result of Enbridge's diligent efforts to advance the project. Nonetheless, the project faces active opposition in ongoing regulatory proceedings. The most notable of these proceedings is before the Minnesota Public Utilities Commission ("MPUC"). Enbridge's procurement of other necessary approvals has been delayed pending the completion of the MPUC proceeding.

The approvals necessary for the replacement of Original US Line 3 are identified in the table below. Enbridge currently is pursuing those permits that can be pursued prior to a final routing decision by the MPUC and will be doing likewise for those permits that can only be pursued later in the permitting process.

Table 1: Permits/Approvals Required for Line 3 Replacement

Table 1: Permits/Approvals Required for Line 3 Replacement		
Unit of Government	**Type of Application**	**Reason Required**
U.S. Army Corps of Engineers ("USACE") – St. Paul District and Minnesota Pollution Control Agency ("MPCA")	Section 404/10 Individual Permit and associated MPCA 401 Individual Water Quality Certification	Authorizes discharge of dredged and fill material into waters of the United States, including wetlands, and crossing of navigable waters of the United States; USACE has engaged Minnesota tribes through this process.
USACE – Omaha District	Section 404/10 Nationwide Permit	Authorizes discharge of dredged and fill material into waters of the United States, including wetlands, and crossing of navigable waters of the United States.
USACE – St. Paul District	Section 408 Authorization	Authorizes crossing of USACE civil works projects.
USACE in coordination with North Dakota and Minnesota State Historic Preservation Offices ("SHPOs") and ("Tribal Historic Preservation Offices")	National Historic Preservation Act ("NHPA") Section 106 Clearance	Ensures adequate consideration of impacts to significant cultural resources but especially National Register of Historical Properties ("NRHP")-eligible within the lead federal agency Area of Potential Effect ("APE"). SHPOs and THPOs are engaged through the USACE Section 404/10 process.
U.S. Fish & Wildlife Service ("USFWS")	Section 7 Endangered Species Act ("ESA") Consultation (federal threatened or endangered species)	Establishes conservation measures and authorizes, as needed, take of ESA-listed species; the USFWS is engaged through the USACE Section 10/404 process.
	Migratory Bird Treaty Act ("MBTA")	Establishes the conservation measures to protect migratory birds.
	Bald Eagle Nest Disturbance Permit	Allows for disturbance of a known bald eagle nest in proximity to construction activities.

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Table 1: Permits/Approvals Required for Line 3 Replacement		
Unit of Government	**Type of Application**	**Reason Required**
Minnesota Public Utilities Commission ("MPUC")	Certificate of Need	Determines need for the pipeline, including questions of size, type and timing.
	Route Permit	Authorizes construction of the pipeline along a specific route, subject to certain conditions.
Minnesota Department of Natural Resources ("MDNR")	License to Cross Public Waters	50-year license that allows for crossing of public waters with proposed utility.
	License to Cross Public Lands	50-year license that allows for crossing of public lands with proposed utility.
	Long-term Lease – Access Roads	Authorizes use of MDNR-managed access roads during construction and/or operation.
	Water Appropriation Permit – Pipeline and Facilities	Authorizes withdrawal and use of water from surface or ground sources.
	Endangered Species Permit	Outlines plans for avoidance, minimization, and mitigation of take of state-listed flora species and authorizes take of individuals.
	Gully 30 Calcareous Fen Authorization	Outlines the construction, restoration, and monitoring.
MPCA	Clearbrook Terminal Air Quality Permit – Synthetic-Minor Individual State Operating Permit	Authorizes construction and operation at the modified Clearbrook Terminal.
	National Pollutant Discharge Elimination System ("NPDES") Individual Construction Stormwater, Hydrostatic Test, and Trench Dewatering Permit – Pipeline	Authorizes ground disturbance with approved protection measures to manage soil erosion and stormwater discharge on construction site; discharge of water from hydrotesting activities; and removal of water that may accumulate in pipeline trench.
	NPDES General Construction Stormwater Coverage – Facilities	Authorizes ground disturbance with approved protection measures to manage soil erosion and stormwater discharge on construction site.
	NPDES General Construction Stormwater Coverage – Pipeyards and Contractor Yards	Authorizes ground disturbance with approved protection measures to manage soil erosion and stormwater discharge on construction site.

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Table 1: Permits/Approvals Required for Line 3 Replacement		
Unit of Government	**Type of Application**	**Reason Required**
Minnesota SHPO and THPOs in coordination with the Minnesota Department of Commerce ("DOC")	NHPA Section 106 Clearance	Ensures adequate consideration of impacts to significant cultural resources but especially NRHP-eligible outside of the federal agency APE. The Minnesota SHPO and THPOs are engaged through Minnesota DOC NEPA process.
Minnesota Department of Agriculture ("MDA")	Agricultural Protection Plan ("APP")	Establishes measures for agricultural protection.
Minnesota Department of Transportation ("MDOT")	Road Crossing Permits	Authorizes crossings of state jurisdictional roadways.
	Temporary access/entrance	Authorizes access to private lands during construction from state.
Red Lake, Wild Rice, Two Rivers, and Middle-Snake Watershed Districts	Watershed District Permits	Authorizes crossing of legal drains and ditches within watershed.
Mississippi Headwaters Board	Compatibility Evaluation	Submittal ensures project crossings align with Minnesota Statutes 116C.57 subd.2c.
North Dakota State Water Commission ("NDSWC")	Sovereign Lands Permit	Authorizes crossing of state Sovereign Lands and navigable waters.
	Temporary Water Permit / Water Withdrawal Permit	Coverage under a temporary water permit authorizes water use for horizontal direction drills ("HDDs") and hydrostatic testing.
North Dakota Department of Health ("NDDH")	Construction Stormwater General Permit	Coverage under General Permit NDR10-0000 authorizes ground disturbance with approved protection measures to manage soil erosion and stormwater discharge on construction site.
	Temporary Dewatering / Hydrostatic Discharge Permit	Coverage under General Permit NDG-0700000 authorizes for temporary dewatering and hydrostatic test discharge activities.

Permitting:

Minnesota: Enbridge is awaiting the issuance of approvals necessary to replace Original US Line 3 in Minnesota. A number of local, county, state, and federal approvals are required before the replacement of the approximate 340.4-mile segment of Line 3 in Minnesota can proceed.

The primary approval needed for the replacement in Minnesota is from the MPUC. Enbridge filed its applications for a Certificate of Need and Route Permit with the MPUC on April 24, 2015. Information filed by Enbridge and parties to those proceedings can be found at MPUC docket nos. 14-916 (for the Certificate of Need) and 15-137 (for the Route Permit).[1] The MPUC's procedure to process Certificate of Need and Route Permit applications consists of: (i) an environmental review proceeding (Environmental Impact Statement) to assess the potential direct, indirect, and cumulative impacts that may result from the replacement of Line 3 in Minnesota; and (ii) a merits proceeding to assess the need and convenience for the proposed replacement. Both the environmental review and merits proceedings are ongoing before the MPUC. Enbridge is actively engaged in requesting that the MPUC process be completed in accordance with the rules and as expeditiously as possible. Scheduling authority, however, lies with the MPUC and not Enbridge. Enbridge currently expects that the MPUC will issue an authorization to construct the Line 3 replacement in Q4 2018.

North Dakota: In 2014, Enbridge replaced an approximate 15-mile segment of Line 3 that extends from the U.S.-Canada border to the first U.S. mainline valve. Enbridge must still replace a 12.3-mile segment of Line 3 in North Dakota near the Minnesota border. In order to proceed with that replacement, Enbridge will also be required to:

- File the necessary notifications with the North Dakota Public Service Commission that Enbridge intends to proceed with construction under the PSC's order approving the replacement project in North Dakota.
- Obtain approval from the US Army Corps of Engineers for the construction of the replacement in or near waters of the United States.
- Obtain additional state permits identified in the Permits/Approvals required for Line 3 Replacement table earlier in this section.

Wisconsin: The Original Line 3 extends approximately 14 miles in the State of Wisconsin. Enbridge has received all approvals and permits necessary for the replacement of that 14-mile segment. Enbridge initiated construction of the replacement in July 2017. Approximately 13.3 miles has been completed thru November 2017. Enbridge anticipates that the replacement will be complete and placed into service in 2018.

22.b [Line 3 Deactivation]

Deactivation work is planned to commence once the Line 3 Replacement is mechanically complete, and the final clean-out and decommissioning of Original US Line 3 will be complete within one year thereafter, in accordance with Subparagraph 22.b of the Consent Decree.

22.c [Original US Line 3 Maximum Operating Pressure ("MOP")]

Enbridge has limited the operating pressure of all Line 3 Lakehead Pipeline segments in accordance with MOP values specified at https://www.epa.gov/enbridge-spill-michigan/enbridge-revised-maximum-operating-pressure-values. Enbridge has not increased operating pressures above those MOP values; therefore, hydrostatic pressure tests were neither required to be conducted nor needed to be provided to the U.S. Environmental Protection Agency ("EPA") with associated procedures and results. Enbridge has not exceeded the MOP values submitted to the EPA.

22.d [Requirements for the Use of Original US Line 3]

All portions of Original US Line 3 were not taken out of service by December 31, 2017. As a result, Enbridge will implement the additional requirements of Subparagraph 22.d during 2018. Compliance with those requirements

[1] The docket filings are available on the MPUC's website at https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showeDocketsSearch&searchType=new.

generally will be addressed in the next Semi-Annual Report, which will cover the time period in question.

One requirement under Subparagraph 22.d is that Enbridge conduct quarterly cleaning and biocide treatment of Line 3 commencing January 1, 2018. During the current reporting period, Enbridge conducted quarterly biocide treatments on the Original US Line 3 as set forth in the table below. Enbridge conducted these treatments even though the requirements of Subparagraph 22.d were not yet applicable.

Table 2: Original US Line 3 Biocide Treatments

Table 2: Original US Line 3 Biocide Treatments		
Segment	**Type of Tool Run**	**Completion Date (MM/DD/YYYY)**
Gretna to Clearbrook	Biocide treatment	03/02/2017
Gretna to Clearbrook	Biocide treatment	06/02/2017
Gretna to Clearbrook	Biocide treatment	08/07/2017
Gretna to Clearbrook	Biocide treatment	11/01/2017
Clearbrook to Superior	Biocide treatment	03/03/2017
Clearbrook to Superior	Biocide treatment	06/02/2017
Clearbrook to Superior	Biocide treatment	08/22/2017
Clearbrook to Superior	Biocide treatment	11/06/2017

22.e [Prohibition Regarding the Use of Original US Line 3 Following Replacement]

The Original US Line 3 continues to operate. The only segment of Line 3 to be replaced to date – a 15.7-mile segment in North Dakota – was taken out of service in 2014 and is not used to transport oil, gas, diluent, or any hazardous substance.

23 [Line 10 Replacement Evaluation]

In accordance with Paragraph 23, Enbridge submitted a report, "Evaluation of Replacement of Portions of Line 10 within the United State," to the EPA on September 20, 2017. The report evaluated the possible replacement of the US portion of Line 10, which extends between the Canadian border near Niagara Falls, New York, and the terminus of the pipeline near West Seneca, New York. The report also included a separate evaluation of replacement of the short segment of Line 10 that crosses the Niagara River at Grand Island, New York. The report contained a discussion of the number, density and severity of crack and corrosion features found on US Line 10, as well as a comparison of these features to those on the 21-mile section of Line 10 near Hamilton, Ontario Canada, as required under Paragraph 23.

In late 2017, Enbridge identified that the feature counts used in the charts and analysis in the report for the US portion of Line 10 were higher than exist in the line, due to some features being duplicated. Analysis of the revised feature counts is ongoing and the revised feature counts will be provided to the EPA.

Section C - Hydrostatic Pressure Testing

24 [Hydrostatic Pressure Testing Plan and Schedule]

Enbridge conducted hydrostatic pressure testing on the portion of Line 5 that spans the Straits of Mackinac (the "Hydrotest"). Enbridge submitted the test plan, "Line 5 Straits of Mackinac Hydrostatic Pressure Test Plan", to the EPA on March 1, 2017, more than 90 days before the start of the test, satisfying both the 60 day requirement in Paragraph 24, and the 90 day requirement in Subparagraph 71.b. Subsequent to review by the EPA and the Independent Third Party ("ITP"), Enbridge submitted a revised test plan on April 25, 2017.

On March 22, 2017 the EPA requested a compliance verification report from the ITP pursuant to Subparagraph 132.b. The ITP provided a compliance verification report of their review of the "Line 5 Straits of Mackinac Hydrostatic Pressure Test Plan" on May 8, 2017, stating that it meets applicable Consent Decree requirements.

The Hydrotest of Enbridge Dual Pipelines across the Straits of Mackinac was successfully conducted on June 10 and June 16, 2017, in accordance with the approved Test Plan. The scope of the Hydrotest applied to the 4.09-mile portion of Line 5, consisting of two, 20-inch diameter pipelines that cross the Straits of Mackinac from the North Mackinac sending traps to the South Mackinaw Station receiving traps.

All permit applications related to the Line 5 Hydrotest were submitted to respective government agencies on time, and all permits were received on time.

25 [Procedures for Hydrostatic Pressure Testing]

The only hydrostatic pressure test undertaken in the reporting period pursuant to the terms of the Consent Decree was on the portion of Line 5 that span the Straits of Mackinac. The text below for 'a.' through 'f.' describes how Enbridge complied with the Consent Decree for this Hydrotest.

The ITP was present at the test location for the duration of the testing activities.

25.a [Use of Test Segments for Hydrostatic Pressure Testing]

The Hydrotest was conducted in two phases: (1) The west segment was drained, isolated, purged, and prepared first, followed by the strength and leak tests on June 10, 2017. During this time, the east segment remained in operation. (2) The west segment was returned to operation after the test, and then the east segment was drained, isolated, purged, and prepared, followed by the strength and leak tests on June 16, 2017. During this time, the west segment remained in operation. After the east segment was tested, it was returned to operation on June 18, 2017.

25.b [Continuous 8 Hour Hydrostatic Pressure Testing]

Each test segment was successfully tested with pressures and durations that met the requirements included in this Paragraph.

25.b (1) [Maintain Pressure of at least 1.25 x MOP for 4 hours]

Test pressure was maintained at more than 1.25 x MOP for more than four hours. MOP is 600 psi and the strength test was conducted at greater than 1200 psi throughout the pipeline segment for 4 hours and 15 minutes.

25.b (2) [Maintain Operating Pressure not less than 1.1 x MOP for remainder of the test]

Test pressure was maintained at more than 1.1 x MOP for more than four hours. MOP is 600 psi and the leak test was conducted at greater than 660 psi throughout the pipeline segment for 4 hours and 15 minutes.

25.c [Hydrostatic Pressure Testing shall occur less than 270 days from the date of EPA's receipt of the Test Plan]

Enbridge commenced the test more than 90 days after the EPA received the plan and schedule.

- Plan submitted: March 1, 2017
- Straits Dual Pipeline - West Pipeline Tested On: June 10, 2017
- Straits Dual Pipeline - East Pipeline Tested On: June 16, 2017

25.d [No Additional Water Once Hydrostatic Pressure Testing Underway]

No additional water was added to the tested pipe sections during the Hydrotest.

25.e [Written Notification Prior to Hydrostatic Pressure Testing]

Numerous communications provided relevant federal agencies and relevant local emergency responders with written notice at least 30 days prior to the commencement of the planned pressure test. See Steptoe 2017 letters of February 21, March 1, March 17, March 29 and May 9.

25.f [Hydrostatic Pressure Testing Report]

The final report on the Line 5 Hydrotest was provided to the EPA, with copy to the ITP, on September 18, 2017, ahead of the due date of October 16, 2017 (120 days following completion of the test). Because no features leaked or ruptured during the Hydrotest, no description of such features or proposed corrective action was required.

On November 16, 2017, ITP completed a compliance verification report concluding that the Enbridge Hydrotest of the Straits was in compliance with the Consent Decree requirements.

26 [Line Failure During Hydrostatic Pressure Testing]

No line failures or evidence of leaks occurred during the Hydrotest.

26.a [Prevent Discharge from Line Failure During Hydrostatic Pressure Testing from Reaching a Body of Water]

No line failures or evidence of leaks occurred during the Hydrotest.

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26.b [Line Failure During Hydrostatic Pressure Testing Investigatory Report]

No line failures or evidence of leaks occurred during the Hydrotest; therefore, an investigatory report is not required.

Section D – In-line Inspection Based spill Prevention Program

(I) In-Line Inspections

27 [Timely Identification and Evaluation of All Features]

Enbridge's implementation of the requirements of Subsection VII.D.(I) (Paragraphs 27 to 31) for the timely identification and evaluation of features of significance is set forth in the following sections.

28.a-b [Periodic In-line Inspections ("ILI") and ILI Schedule]

For purposes of conducting In-Line Inspections, the Lakehead Pipeline System is divided into discrete segments. The relevant Lakehead Pipeline segments are listed in the following table for reference.

<u>Table 3: Lakehead Pipeline ILI Segments</u>

Table 3: Lakehead Pipeline ILI Segments		
Line	**Segment**	**Segment Name**
L0001	CR-PW	CLEARBROOK to SUPERIOR TERMINAL WEST
L0001	GF-CR	GRETNA to CLEARBROOK
L0002	CR-DR	CLEARBROOK to DEER RIVER
L0002	DR-PW	DEER RIVER to SUPERIOR TERMINAL WEST
L0002	GF-CR	GRETNA to CLEARBROOK
L0003	CR-PW	CLEARBROOK to SUPERIOR TERMINAL WEST
L0003	GF-CR	GRETNA to CLEARBROOK
L0004	CR-CS	CLEARBROOK to CASS LAKE
L0004	CS-DR	CASS LAKE to DEER RIVER
L0004	DN-VG	DONALDSON to VIKING
L0004	DR-FW	DEER RIVER to FLOODWOOD
L0004	FW-WR	FLOODWOOD to WRENSHALL
L0004	GF-DN	GRETNA to DONALDSON
L0004	PL-CR	PLUMMER to CLEARBROOK
L0004	VG-PL	VIKING to PLUMMER

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Table 3: Lakehead Pipeline ILI Segments		
Line	**Segment**	**Segment Name**
L0004	WR-PW	WRENSHALL to SUPERIOR TERMINAL WEST
L0005	BC-RW	BAY CITY to SARNIA TERMINAL WEST
L0005	ENO-EMA	EAST NORTH STRAITS to EAST MACKINAW
L0005	IR-NO	IRON RIVER to NORTH STRAITS
L0005	MA-BC	MACKINAW to BAY CITY
L0005	PE-IR	SUPERIOR TERMINAL EAST to IRON RIVER
L0005	WNO-WMA	WEST NORTH STRAITS to WEST MACKINAW
L0006A	AM-GT	ADAMS to GRIFFITH
L0006A	PE-AM	SUPERIOR TERMINAL EAST to ADAMS
L0006B	GT-SK[1]	GRIFFITH to STOCKBRIDGE
L0006B	SK-RW[1]	STOCKBRIDGE to SARNIA TERMINAL WEST
L0010	EB-ENR	GRAND ISLAND to EAST NIAGARA RIVER
L0010	ENR-UT	EAST NIAGARA RIVER to KIANTONE TAKE-OFF
L0010	WNR-EB	WEST NIAGARA RIVER to GRAND ISLAND
L0014	AM-MK	ADAMS to MOKENA
L0014	PE-AM	SUPERIOR TERMINAL EAST to ADAMS
L0061	PE-FN	SUPERIOR TERMINAL EAST to FLANAGAN
L0062	FN-HD	FLANAGAN to HARTSDALE
L0064	GL-GT	GRIFFITH LATERAL to GRIFFITH
L0065	GF-CR	GRETNA to CLEARBROOK
L0067	CR-PW	CLEARBROOK to SUPERIOR TERMINAL WEST
L0067	GF-CR	GRETNA to CLEARBROOK
L0078	GT-SK[1]	GRIFFITH to STOCKBRIDGE
L0078	SK-RW[1]	STOCKBRIDGE to SARNIA TERMINAL WEST

TABLE NOTE:

[1] The Line 6B segments GT-SK and SK-RW have been renamed to Line 78 segments GT-SK and SK-RW. The segment names have been duplicated in this list to ensure that historical records are not omitted.

Enbridge conducted 21 In-line Inspections (ILI) of 14 segments of 6 pipelines in the Lakehead System using technologies. The 21 ILIs included 17 runs between May 23, 2017 and November 22, 2017, and 4 additional Consent Decree runs conducted on Line 5 in April 2017 (as provided in Paragraph 70 of the Decree). In addition,

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Enbridge successfully conducted hydrostatic pressure tests (i.e., hydrotests) on Line 2 in September 2015, prior to the Effective Date of the Decree.

A complete table of ILIs conducted during the period covered by this Semi-Annual Report appears immediately below.

Table 4: ILI Runs Completed During May 23, 2017 to November 22, 2017 and Pursuant to Paragraph 70

Table 4: ILI Runs Completed During May 23, 2017, to November 22, 2017, and Pursuant to Paragraph 70					
Tool Run ID (Previous Run ID)	**Line**	**Segment**	**Tool Technology**	**Pull Date**	**Tool Type**
4494(4394)[1]	L0002	GF-CR	MFL and Geometry	11/3/2017	Corrosion, Geometry
3712	L0003	CR-PW	UT Metal Loss	8/21/2017	Corrosion
3711	L0003	GF-CR	UT Crack and UT Metal Loss	11/14/2017	Corrosion, Crack
2254	L0004	CR-CS	UT Crack and UT Metal Loss	10/18/2017	Corrosion, Crack
4465(2333)[2]	L0004	CS-DR	UT Crack and UT Metal Loss	10/20/2017	Corrosion, Crack
4467[3]	L0004	GF-DN	UT Crack and UT Metal Loss	11/22/2017	Corrosion, Crack
2162	L0005	BC-RW	UT Crack Detection	8/8/2017	Crack
2215	L0005	BC-RW	MFL and Geometry	8/24/2017	Corrosion, Geometry
4468(2164)[4]	L0005	BC-RW	Circumferential Crack Detection	11/2/2017	Crack
3752	L0005	ENO-EMA	MFL and Geometry	4/12/2017	Corrosion, Geometry
3753	L0005	ENO-EMA	Circumferential Crack Detection	4/19/2017	Crack
4456	L0005	IR-NO	Circumferential Crack Detection	10/13/2017	Crack
2140	L0005	PE-IR	Circumferential MFL	8/23/2017	Corrosion
2150	L0005	PE-IR	UT Crack Detection	7/19/2017	Crack
3662	L0005	PE-IR	UT Metal Loss	7/12/2017	Corrosion
3754	L0005	WNO-WMA	MFL and Geometry	4/11/2017	Corrosion, Geometry
3755	L0005	WNO-WMA	Circumferential Crack Detection	4/18/2017	Crack

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Table 4: ILI Runs Completed During May 23, 2017, to November 22, 2017, and Pursuant to Paragraph 70					
Tool Run ID (Previous Run ID)	**Line**	**Segment**	**Tool Technology**	**Pull Date**	**Tool Type**
3809	L0006A	PE-AM	UT Crack Detection	10/6/2017	Crack
4182	L0006A	PE-AM	MFL	9/29/2017	Corrosion
4438(2242)[5]	L0010	EB-ENR	UT Crack Detection	9/20/2017	Crack
3645	L0010	ENR-UT	UT Crack Detection	7/27/2017	Crack

TABLE NOTES:

[1] *Run ID 4494 – replaces 4394 from original schedule due to inspection vendor and tool swap*

[2] *Run ID 4465 – replaces 2333 from original schedule due to advancement from 2018 to 2017*

[3] *Run ID 4467 – tool run was completed on November 22, 2017. Tool run failure notification was received on November 24, 2017.*

[4] *Run ID 4468 – replaces 2164 from original schedule*

[5] *Run ID 4438 – replaces 2242 from original schedule due to inspection failure of original run*

The table includes four (4) Line 5 ILI runs at the Straits that were completed in April 2017 (before the Consent Decree Effective Date May 23, 2017). These runs were conducted pursuant to the requirements of Paragraph 70 of the Consent Decree.

In-line inspections currently required under Paragraphs 65 and 66 of the Decree for all lines other than Line 2 have been completed. The schedule for inspecting to detect crack features of Line 2 is addressed in the Stipulation and Agreement agreed to by the Parties and expected to be submitted to the court in the near future. In-Line inspections for corrosion features and geometric features on Line 2 are not affected by the Stipulation and Agreement, and have been completed as required under Paragraphs 65 and 66. Enbridge and EPA originally interpreted the scheduling provisions of Paragraph 28 differently. Those differences have been reconciled as set forth in the Stipulation and Agreement.

Enbridge conducts ILIs on the Lakehead System using tools identified on the Enbridge Approved ILI Tool List. Enbridge submitted the Approved Tool List to the Independent Third Party (ITP) on November 14, 2017. The tools identified on that List have been evaluated as the most appropriate ILI technology as per Enbridge Pipeline Integrity *In-Line Inspection Program*: Appendix B – Tool Selection Rationale (page 30) which was submitted to the EPA on May 25, 2017.

Enbridge provided ITP the Lakehead System Integrity Remediation process on May 25, 2017. The most appropriate tools were selected for individual pipelines or pipeline segments based on multiple factors including tool performance, threat susceptibility and line characteristics. The In-Line Inspections tools and schedules were specified in the line specific Original Integrity Plans, which were submitted to the ITP on July 20, 2017. As discussed in Paragraph 29 below, Enbridge also submitted to the ITP the 12-Month Lakehead ILI Schedule on June 22, 2017. A revised ILI Schedule was submitted on July 14, 2017.

28.c [Incomplete or Invalid ILI]

Vendor contracts for ILIs on the Lakehead System reference the In-Line Inspection Reporting Profile Standard which requires vendors to submit Data Quality Assessments (DQA) according to deadlines. In addition to the In-

Line Inspection Reporting Profile Standard, ILI vendor contracts stipulate that all work under the contract is completed in accordance with the terms and conditions of the Consent Decree.

Notifications for two failed ILI tool runs were received between May 23, 2017 and November 22, 2017, as summarized in the following table[2]. The vendor followed proper protocol as specified in Enbridge's, In-Line Inspection Reporting Profile Standard. Enbridge followed all necessary steps to complete a valid ILI within the timeframes specified in Paragraphs 65 and 66 of the Consent Decree. Paragraph 31 of this Semi-Annual Report includes detailed information about the incomplete or invalid ILI tool runs.

Table 5: Incomplete or Invalid ILIs and Rerun Dates

Table 5: Incomplete or Invalid ILIs and Rerun Dates								
Tool Run ID	**Line**	**Segment**	**Tool**	**Inspection Deadline**	**Pull Date**	**Date of DQA Notification**	**Rerun Tool Run ID**	**Rerun Date**
2574	L0006A	AM-GT	UMP	1/12/2018	7/25/2017	8/8/2017	4443	11/28/2017
2242	L0010	EB-ENR	UC	10/20/2019	7/26/2017	7/31/2017	4438	9/20/2017

TABLE NOTE:

A third ILI run failure notification (Run ID 4467) was received on November 24, 2017 (two days after the period covered by this Report). The re-run has been scheduled to meet the re-inspection interval requirements, and Enbridge will provide information regarding this failure in next Semi-Annual Report.

29 [12-Month ILI Schedule]

Enbridge submitted the 12-Month Lakehead ILI Schedule (ILI Schedule) to the EPA on June 22, 2017. The submission of the schedule was within 30 days of the Effective Date of the Consent Decree.

On July 14, 2017, Enbridge submitted a revised schedule titled, 12-Month Lakehead ILI Schedule Rev 1.1.

The following table includes each ILI tool run that is scheduled to be initiated on any pipeline during the period from November 23, 2017 to November 22, 2018 (the 12-month period after the reporting period covered by this Semi-Annual Report).

The Required Completion Dates shown in this table are consistent with the re-inspection interval requirements in Paragraphs 65 and 66 of the Consent Decree.

[2] A third ILI run failure notification (Run ID 4467) was received on November 24, 2017 (two days after the period covered by this Report). The re-run has been scheduled to meet the re-inspection interval requirements, and Enbridge will provide information regarding this failure in next Semi-Annual Report.

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Table 6: 12-Month Lakehead ILI Schedule (November 23, 2017 - November 22, 2018)

Table 6: 12-Month Lakehead ILI Schedule (November 23, 2017 – November 22, 2018)					
Run ID	**Line**	**Segment Name**	**Tool Technology**	**Threat Monitored**	**Required Completion Date[1]**
2454	L0001	CLEARBROOK to SUPERIOR TERMINAL WEST	MFL and Geometry	Corrosion, Geometry	8/17/2018
4045	L0001	CLEARBROOK to SUPERIOR TERMINAL WEST	UT Metal Loss	Corrosion	9/25/2018
4405	L0001	CLEARBROOK to SUPERIOR TERMINAL WEST	UT Crack Detection	Crack	2/24/2019
4395	L0002	CLEARBROOK to DEER RIVER	MFL and Geometry	Corrosion, Geometry	4/9/2018
4396	L0002	DEER RIVER to SUPERIOR TERMINAL WEST	MFL and Geometry	Corrosion, Geometry	1/23/2018
3831	L0003	CLEARBROOK to SUPERIOR TERMINAL WEST	UT Crack Detection	Crack	4/4/2018
3830	L0003	CLEARBROOK to SUPERIOR TERMINAL WEST	Circumferential MFL	Corrosion	8/20/2018
3829	L0003	CLEARBROOK to SUPERIOR TERMINAL WEST	MFL and Geometry	Corrosion, Geometry	8/20/2018
3826	L0003	GRETNA to CLEARBROOK	Circumferential MFL	Corrosion	6/7/2019
4447	L0003	GRETNA to CLEARBROOK	MFL and Geometry	Corrosion, Geometry	11/14/2018
3827	L0003	GRETNA to CLEARBROOK	UT Crack Detection	Crack	11/14/2018
2309	L0004	CASS LAKE to DEER RIVER	Geometry	Geometry	4/27/2022
2351	L0004	DONALDSON to VIKING	UT Crack and UT Metal Loss	Corrosion, Crack	5/14/2018
2346	L0004	DEER RIVER to FLOODWOOD	UT Crack and UT Metal Loss	Corrosion, Crack	4/15/2018

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Table 6: 12-Month Lakehead ILI Schedule (November 23, 2017 – November 22, 2018)					
Run ID	**Line**	**Segment Name**	**Tool Technology**	**Threat Monitored**	**Required Completion Date[1]**
4466	L0004	FLOODWOOD to WRENSHALL	UT Crack and UT Metal Loss	Corrosion, Crack	5/12/2018
6013	L0004	GRETNA to DONALDSON	UT Crack and UT Metal Loss	Corrosion, Crack	3/9/2018
2358	L0004	PLUMMER to CLEARBROOK	UT Crack and UT Metal Loss	Corrosion, Crack	5/10/2018
2323	L0004	VIKING to PLUMMER	UT Crack and UT Metal Loss	Corrosion, Crack	2/22/2018
2689	L0004	WRENSHALL to SUPERIOR TERMINAL WEST	Geometry	Geometry	2/11/2020
2381	L0004	WRENSHALL to SUPERIOR TERMINAL WEST	UT Crack and UT Metal Loss	Corrosion, Crack	5/13/2018
2371	L0005	EAST NORTH STRAITS to EAST MACKINAW	MFL	Corrosion	4/12/2018
6016	L0005	EAST NORTH STRAITS to EAST MACKINAW	Geometry	Geometry	4/12/2018
4449	L0005	EAST NORTH STRAITS to EAST MACKINAW	Circumferential Crack Detection	Crack	4/19/2018
4406	L0005	MACKINAW to BAY CITY	Circumferential MFL	Corrosion	5/21/2018
4464	L0005	MACKINAW to BAY CITY	Circumferential Crack Detection	Crack	12/31/2018
4213	L0005	SUPERIOR TERMINAL EAST to IRON RIVER	Geometry	Geometry	3/13/2022
2724	L0005	SUPERIOR TERMINAL EAST to IRON RIVER	Circumferential Crack Detection	Crack	10/12/2019
2370	L0005	WEST NORTH STRAITS to WEST MACKINAW	MFL	Corrosion	4/11/2018
6017	L0005	WEST NORTH STRAITS to WEST MACKINAW	Geometry	Geometry	4/11/2018
4450	L0005	WEST NORTH STRAITS to WEST MACKINAW	Circumferential Crack Detection	Crack	4/18/2018
4443	L0006A	ADAMS to GRIFFITH	UT Metal Loss	Corrosion	10/3/2018

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Table 6: 12-Month Lakehead ILI Schedule (November 23, 2017 – November 22, 2018)					
Run ID	**Line**	**Segment Name**	**Tool Technology**	**Threat Monitored**	**Required Completion Date[1]**
4334	L0006A	ADAMS to GRIFFITH	MFL and Geometry	Corrosion, Geometry	1/12/2018
4452	L0006A	ADAMS to GRIFFITH	Circumferential Crack Detection	Crack	12/31/2018
2305	L0006A	SUPERIOR TERMINAL EAST to ADAMS	Circumferential Crack Detection	Crack	12/31/2018
4107	L0010	GRAND ISLAND to EAST NIAGARA RIVER	MFL and Geometry	Corrosion, Geometry	9/4/2018
4109	L0010	EAST NIAGARA RIVER to KIANTONE TAKE-OFF	MFL and Geometry	Corrosion, Geometry	8/19/2018
4473	L0010	EAST NIAGARA RIVER to KIANTONE TAKE-OFF	UT Metal Loss	Corrosion	8/19/2018
4105	L0010	WEST NIAGARA RIVER to GRAND ISLAND	MFL and Geometry	Corrosion, Geometry	7/14/2020
2411	L0010	WEST NIAGARA RIVER to GRAND ISLAND	UT Crack Detection	Crack	7/11/2020
2459	L0064	GRIFFITH LATERAL to GRIFFITH	MFL and Geometry	Corrosion, Geometry	9/19/2018
2369	L0067	GRETNA to CLEARBROOK	MFL and Geometry	Corrosion, Geometry	4/18/2019
4487	L0078	GRIFFITH to STOCKBRIDGE	MFL and Geometry	Corrosion, Geometry	10/9/2019
4469	L0078	STOCKBRIDGE to SARNIA TERMINAL WEST	MFL and Geometry	Corrosion, Geometry	10/22/2019
4489	L0078	STOCKBRIDGE to SARNIA TERMINAL WEST	UT Metal Loss	Corrosion	10/22/2019

TABLE NOTE:

[1] ILI tools will be scheduled/run prior to the Required Completion Date. The Required Completion Dates comply with all applicable laws and regulations in addition to the Consent Decree requirements.

Changes to Previous 12-Month ILI Schedule (May 23, 2017 to May 22, 2018)

The following table outlines changes to Tool Runs associated with the previous 12-month Lakehead ILI schedule (May 23, 2017 to May 22, 2018).

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Table 7: Changes to Previous 12-Month ILI Schedule (May 23, 2017 to May 22, 2018)

Table 7: Changes to Previous 12-Month ILI Schedule (May 23, 2017 to May 22, 2018)						
Original Run ID	**Revised Run ID**	**Line**	**Segment Name**	**Technology**	**Threat Monitored**	**Schedule Revision Comments**
3828	4447	L0003	GRETNA to CLEARBROOK	Geometry	Geometry	Geometry inspection will be included in a combination tool run (Corrosion, Geometry).
3552	4464	L0005	MACKINAW to BAY CITY	Circumferential Crack Detection	Crack	Run ID 3352 failed in 2017. Run is a baseline, so no CD-specified deadline.
2616	4469	L0006B	STOCKBRIDGE to SARNIA TERMINAL WEST	MFL	Corrosion	New Run ID reflects the use of a combination tool (Corrosion, Geometry) and the re-naming of L0006B to L0078
2574	4443	L0006A	ADAMS to GRIFFITH	UT Metal Loss	Corrosion	Failed run discussed in Paragraph 31 of this Semi-Annual Report.
4079	4489	L0006B	STOCKBRIDGE to SARNIA TERMINAL WEST	UT Metal Loss	Corrosion	New Run ID reflects the re-naming of L0006B to L0078.

30 [ILI Schedule Modification]

ILIs have been performed as shown in the table provided above in Paragraph 27. During this time period there were two unsuccessful ILI runs that required a re-run as discussed in Subparagraph 28.c of this Semi-Annual Report. One of the two re-runs was executed outside of the reporting period of this Semi-Annual Report and therefore has been excluded from the list shown in Paragraph 27. Inspections designed to detect crack features on Line 2 are addressed in the Stipulation and Agreement agreed to by the Parties and expected to be submitted to the court in the near future.

31 [ILI Compliance with Tool Specifications]

Enbridge reviewed Vendor-provided Data Quality Assessment (DQA) reports for each ILI performed, and compared the reports against Vendor tool specifications and other relevant information. Two in-line inspections did not meet vendor specifications during the current reporting period. The tables provided immediately below contain (1) a summary of inspections that did not meet ILI Vendor specifications for data quality; and (2) a detailed listing of each invalid inspection, including the reason it was deemed invalid and actions taken to prevent recurrence.

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Table 8: Incomplete or Invalid ILIs and Rerun Dates

Table 8: Incomplete or Invalid ILIs and Rerun Dates								
Tool Run ID	**Line**	**Segment**	**Tool**	**Inspection Deadline**	**Pull Date**	**Date of DQA Notification**	**Rerun Tool Run ID**	**Rerun Date**
2574	L0006A	AM-GT	UMP	1/12/2018	7/25/2017	8/8/2017	4443	11/28/2017
2242	L0010	EB-ENR	UC	10/20/2019	7/26/2017	7/31/2017	4438	9/20/2017

TABLE NOTE:

A third ILI run failure notification (Run ID 4467) was received on November 24, 2017 (two days after the period covered by this Report). The re-run has been scheduled to meet the re-inspection interval requirements, and Enbridge will provide information regarding this failure in next Semi-Annual Report.

Details of each deviation that occurred within the reporting period of this Semi-Annual Report can be found in the following tables.

Table 9: Tool Run 2574

Table 9: Tool Run 2574	
Category	**Description**
Line Number	6A
Segment Start Trap	AM - Adams
Segment End Trap	GT - Griffith
Tool Technology	Ultrasonic Wall Measurement
Tool Run Launch Date	July 22, 2017
Tool Run Receipt Date	July 25, 2017
Tool Pull Date	July 25, 2017
Date of DQA Notification	August 8, 2017
Description of DQA Issue	Odometer slippage led to inaccurate collection of inspection data.
Cause of Issue	Debris caught in odometer wheels causing wheels to slip.
Corrective Action	Utilize an additional cleaner prior to the inspection re-run to minimize the potential for debris accumulation by the tool.
Tool Rerun Required?	Yes
Tool Re-Run Date	November 28, 2017

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Table 10: Tool Run 2242

Table 10: Tool Run 2242	
Category	**Description**
Line Number	10
Segment Start Trap	EB – Grand Island
Segment End Trap	ENR – Niagara East
Tool Technology	Ultrasonic Crack Detection
Tool Run Launch Date	July 25th 2017
Tool Run Receipt Date	July 25th 2017
Tool Pull Date	July 26th 2017
Date of DQA Notification	July 31st 2017
Description of DQA Issue	No inspection data was recorded by the tool.
Cause of Issue	Tool Malfunction. An electrical component failed upon tool startup, preventing the collection of inspection data.
Corrective Action	The faulty electrical component was replaced, tool functionality tests completed, and the inspection tool was prepared for a re-run in the pipeline segment.
Tool Rerun Required?	Yes
Tool Re-Run Date	September 20, 2017

(II) Review of ILI Data

32.a-c [Initial ILI Reports for Crack (120 days), Corrosion (90 days) and Geometric (60 days) Features]

The following table lists valid ILI tool runs for which the Initial ILI Reports were received on or before November 22, 2017.[3] Tool speed and tool performance were indicated in all reports listed.

[3] The failure notification for one tool run (Run ID 4467) was received on November 24, 2017. That run will be included in the next Semi-Annual Report.

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Table 11: Valid In-line Inspection Runs with Reports Received

Table 11: Valid In-line Inspection Runs with Reports Received							
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Report Due Date**	**Report Received Date**	**Report Received On Time?**
3712	L0003	CR-PW	USWM+	Corrosion	11/19/2017	11/18/2017	TRUE
2215	L0005	BC-RW	GEMINI	Corrosion	11/22/2017	11/22/2017	TRUE
2215	L0005	BC-RW	GEMINI	Geometry	10/23/2017	10/23/2017	TRUE
3752	L0005	ENO-EMA	GEMINI	Geometry	6/11/2017	5/12/2017	TRUE
3752	L0005	ENO-EMA	GEMINI	Corrosion	7/11/2017	6/9/2017	TRUE
3753	L0005	ENO-EMA	UCc	Crack	8/17/2017	5/25/2017	TRUE
2140	L0005	PE-IR	AFD	Corrosion	11/21/2017	11/21/2017	TRUE
2150	L0005	PE-IR	CD+2	Crack	11/16/2017	11/16/2017	TRUE
3662	L0005	PE-IR	USWM+	Corrosion	10/10/2017	9/29/2017	TRUE
3754	L0005	WNO-WMA	GEMINI	Geometry	6/10/2017	5/12/2017	TRUE
3754	L0005	WNO-WMA	GEMINI	Corrosion	7/10/2017	6/9/2017	TRUE
3755	L0005	WNO-WMA	UCc	Crack	8/16/2017	5/25/2017	TRUE

TABLE NOTE:

There were two unsuccessful ILI runs that required re-runs as outlined in Paragraph 31 of this Semi-Annual Report which have no report

33 [Priority Features]

33.a [Immediate Priority Feature Notification]

Enbridge contracts require that vendors notify Enbridge of Priority Features as specified in Subparagraphs 33.a and 33.b.

33.b [Priority Feature Definition]

Reporting criteria for what are deemed as Priority Features are outlined in the In-Line Inspection Reporting Profile Standard which is a contractual obligation for all ILI vendors. The In-Line Inspection Reporting Profile Standard has been provided to the ITP for compliance verification activities.

Consistent with the requirements within the Consent Decree, the In-Line Inspection Reporting Profile Standard includes the following priority notification reporting criteria:

1. Features that the ILI Vendor may consider to be an immediate threat to the integrity of the pipeline.
2. Dent or geometric features greater than or equal to 5 percent of the outside diameter (OD) of the pipe.

3. Metal loss features with peak depth greater than or equal to 75 percent of the nominal wall thickness of the pipe.
4. Metal loss features forecasted to reach a maximum depth of greater than or equal to 75 percent of nominal wall thickness with 365 calendar days.
5. Unmatched metal loss features with a depth greater than 50 percent of the nominal wall thickness or actual wall thickness.
6. Crack features that meet or exceed the saturation limit of the crack detection tool.
7. Crack features greater than or equal to 2.5 mm/0.098 inch detected on the internal and external pipe surface at the same location.
8. Priority notification criteria specifically identified in a project work order.

Priority Features are determined to be a Feature Requiring Excavation ("FRE") according to the Consent Decree - Appendix A (i.e. Priority Notification Criteria), as specified in Subparagraph 33.c. No Priority Features required excavation in this reporting period as specified in Subparagraph 33.d. To the best of Enbridge knowledge, no vendor failed to report Priority Features during the reporting period of this Semi-Annual Report.

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33.c-d [Priority Feature Review and Mitigation if Required]

The following table identifies Priority Features for which Enbridge received notification from vendors during this reporting period. Each listed feature is then discussed in greater detail immediately below the table. All priority features identified within this reporting period were previously repaired.

Table 12: Priority Features

Table 12: Priority Features											
Run ID	**Line**	**Segment**	**Technology**	**Number of Features**	**Date Priority Notification Received**	**Date Priority Notification Reviewed**	**Date of Discovery / Date Features Added to Dig List**	**Pressure Restriction Required?**	**Date Pressure Restriction Imposed**	**Repair / Mitigation Deadline**	**Date of Repair / Mitigation**
4493	L0002	GF-CR	Geometry (low-resolution line proving)	1	11/2/2017	11/2/2017	11/6/2017	NA	NA	NA	Previously Repaired
4494	L0002	GF-CR	MFL and Geometry	1	11/14/2017	11/14/2017	11/6/2017	NA	NA	NA	Previously Repaired
2215	L0005	BC-RW	MFL and Geometry	1	9/28/2017	9/29/2017	NA	NA	NA	NA	Previously Repaired

Line 2 GF-CR Line Proving (Run ID 4493) and Line 2 GF-CR MFL and Geometry (GEMINI) (Run ID 4494)

On November 2, 2017, Enbridge received a priority notification from a low-resolution caliper Line Proving tool that was removed from the pipeline before the insertion of a combination MFL and high-resolution Geometry tool. The Line Proving tool identified a 6.8 percent dent on the pipe joint downstream of Girth Weld 24150. After reviewing historic pipeline integrity records, it revealed the dent was found to be under a pre-existing sleeve and thus considered repaired. A second priority notification was received specific to this feature following the MFL and Geometry inspection tool on November 14, 2017. This priority notification identified an 8.4 percent dent at the same location.

Though the dent was considered repaired as the result of a sleeve installed in 1977, an exploratory dig package was issued on November 8, 2017, to further field assess the target joint and confirm the historical repair.

The exploratory excavation conducted in November confirmed the historical repair after exposing the target joint and pre-existing sleeve. The excavation was completed on November 18, 2017.

Line 5 BC-RW BH GEMINI (Run ID 2215)

On September 28, 2017, Enbridge received a priority notification from the Line 5 BC-RW BH Gemini tool run, which was removed from the pipeline on August 24, 2017. A 5.1 percent dent was called on GW 130710. This feature is under a pre-existing sleeve and is considered repaired. Therefore, no action was required. Enbridge determined this within 2 days following the receipt of the priority notification meeting the timeline allowed by the Consent Decree.

34 [Data Quality Review]

34.a [Preliminary Review of Initial ILI Report]

There were 12 Initial ILI reports received between May 23, 2017 and November 22, 2017. The preliminary review of the Initial ILI reports received before October 23, 2017 was completed within a 30 day timeframe as required by the Consent Decree. Data concerns were identified with one Initial ILI report. Details regarding these concerns appear below.

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The following table illustrates the Data Quality Review ("DQR") timeline versus requirements in Subparagraph 34.a of the Consent Decree.

Table 13: Preliminary Review of ILI Reports

Table 13: Preliminary Review of Initial ILI Reports									
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Received Date**	**Report Type**	**Date Preliminary Review Required**	**Date Preliminary Review Completed**	**Review Completed on Time?**	**Data Quality Concerns?**
3712	L0003	CR-PW	USWM+	11/18/2017	Corrosion	12/18/2017	FR Note[2]	FR Note[2]	FR Note[2]
2215	L0005	BC-RW	GEMINI	11/22/2017	Corrosion	12/22/2017	FR Note[2]	FR Note[2]	FR Note[2]
2215	L0005	BC-RW	GEMINI	10/23/2017	Geometry	11/22/2017	11/15/2017	Yes	No
3752	L0005	ENO-EMA	GEMINI	5/12/2017	Geometry	6/11/2017	5/17/2017	Yes	No
3752	L0005	ENO-EMA	GEMINI	6/9/2017	Corrosion	7/9/2017	6/28/2017	Yes	No[1]
3753	L0005	ENO-EMA	UCc	5/25/2017	Crack	6/24/2017	6/1/2017	Yes	No
2140	L0005	PE-IR	AFD	11/21/2017	Corrosion	12/21/2017	FR Note[2]	FR Note[2]	FR Note[2]
2150	L0005	PE-IR	CD+2	11/16/2017	Crack	12/16/2017	FR Note[2]	FR Note[2]	FR Note[2]
3662	L0005	PE-IR	USWM+	9/29/2017	Corrosion	10/29/2017	10/27/2017	Yes	Yes
3754	L0005	WNO-WMA	GEMINI	5/12/2017	Geometry	6/11/2017	5/20/2017	Yes	No
3754	L0005	WNO-WMA	GEMINI	6/9/2017	Corrosion	7/9/2017	6/28/2017	Yes	No[1]
3755	L0005	WNO-WMA	UCc	5/25/2017	Crack	6/24/2017	6/1/2017	Yes	No

TABLE NOTE:

[1] Refer to Line 5 ENO-EMA and WNO-WMA GEMINI Corrosion below

[2] "FR Note" indicates that this information is outside the reporting window of this semi-annual report and will be included in a future Semi-Annual Report.

Line 5 ENO-EMA GEMINI Corrosion (Tool Run ID 3752) and Line 5 WNO-WMA GEMINI Corrosion (Tool Run ID 3754)

Baker Hughes classified several Manufacture Features ("MFG") as, "Metal Loss (Corrosion)" in the 2017 Line 5 Straits Gemini reports. These features were all characterized as corrosion due to the uncertainty of identification for shallow depth metal loss when no prior inspection data is available. Baker Hughes re-issued the reports after review of previous ILI data made available by Enbridge. After review of this data and re-visiting anomaly classification by Baker Hughes, it was determined that the reclassification of anomalies from "Metal Loss (Corrosion)" to MFG is necessary to maintain consistency of analysis process and adherence to expected Baker Hughes anomaly classification.

ENO-EMA Issue 1 identified 35 individual metal loss features and 6 manufactured/pipe mill anomalies. Issue 2 identified 41 manufactured/pipe mill anomalies.

WNO-WMA Issue 1 identified 15 individual metal loss features and 9 manufactured/pipe mill anomalies. Issue 2 identified 24 manufactured/pipe mill anomalies.

Line 5 PE-IR USWM+ (Tool Run ID 3662)

General Electric ("GE") Issue 1 classified several deformations as "wrinkles" in the 2017 USWM+ report. This tool is capable of detecting geometric anomalies but not classifying them. Therefore, Enbridge requested that GE change their classification of these "wrinkles" to "geometric anomalies". API 1163 states that only deformation or geometry tools are capable of classifying geometric anomalies. Enbridge accordingly requested a revised report. Issue 2 of the report has removed the feature type Deformation- Wrinkle and replaced it with, Deformation-Geometric Anomaly with a comment "possibly wrinkle".

34.b [Evaluation of Features Requiring Excavation]

For ILI runs for which no data quality concerns were identified, Enbridge immediately proceeded to evaluate the pipeline segments and/or features against the requirements in Subsection VII.D.(III) of the Consent Decree according to the Lakehead System Integrity Remediation process.

34.c [Resolution of Identified Data Quality Concerns]

The only run with data quality concerns was Tool Run ID 3662 (shown in the Table below), which was a USWM+ tool run on Line 5 PE-IR.

Table 14: Report with Data Quality Concerns

Table 14: Report with Data Quality Concerns							
Tool Run ID	**Line**	**Segment**	**Tool**	**Initial Report Received Date**	**Date Preliminary Review Required**	**Date Preliminary Review Completed**	**Data Quality Concerns?**
3662	L0005	PE-IR	USWM+	9/29/2017	10/29/2017	10/27/2017	Yes

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Line 5 PE-IR USWM+ (Tool Run ID 3662)

Issue 2 of the Line 5 PE-IR USWM+ report, received outside of this reporting period on November 29, 2017, fully addressed the data quality concerns by removing the feature type Deformation - Wrinkle and replacing it with Deformation- Geometric Anomaly with comment "possibly wrinkle" which is now consistent with API1163.

34.d [ILI Data Quality Evaluation Timelines]

Enbridge procedures provide for analysts to complete all data quality evaluations of ILI data within 180 Days after the ILI tool is removed from the pipeline at the conclusion of any ILI investigation. During the reporting period of this Semi-Annual Report, all data were reviewed in a timely manner as provided by applicable procedures. As outlined in the below table, Enbridge completed data reviews for the runs ("Yes" in "Quality Evaluations Completed Within 180 Days" column), and data reviews were ongoing for the runs for which the 180 Day period was still open at the end of this reporting period ("FR Note[1]" in "Quality Evaluations Completed Within 180 Days" column).

<u>**Table 15: Data Quality Evaluation Timelines**</u>

Table 15: Data Quality Evaluation Timelines							
Tool Run ID	**Line**	**Segment**	**Tool**	**Pull Date**	**Report Type**	**Deadline to Complete All ILI Data Quality Evaluations**	**Quality Evaluations Completed Within 180 Days?**
3712	L0003	CR-PW	USWM+	8/21/2017	Corrosion	2/17/2018	FR Note[1]
2215	L0005	BC-RW	GEMINI	8/24/2017	Corrosion	2/20/2018	FR Note[1]
2215	L0005	BC-RW	GEMINI	8/24/2017	Geometry	2/20/2018	FR Note[1]
3752	L0005	ENO-EMA	GEMINI	4/12/2017	Geometry	10/9/2017	Yes
3752	L0005	ENO-EMA	GEMINI	4/12/2017	Corrosion	10/9/2017	Yes
3753	L0005	ENO-EMA	UCc	4/19/2017	Crack	10/16/2017	Yes
2140	L0005	PE-IR	AFD	8/23/2017	Corrosion	2/19/2018	FR Note[1]
2150	L0005	PE-IR	CD+2	7/19/2017	Crack	1/15/2018	FR Note[1]
3662	L0005	PE-IR	USWM+	7/12/2017	Corrosion	1/8/2018	FR Note[1]
3754	L0005	WNO-WMA	GEMINI	4/11/2017	Geometry	10/8/2017	Yes
3754	L0005	WNO-WMA	GEMINI	4/11/2017	Corrosion	10/8/2017	Yes
3755	L0005	WNO-WMA	UCc	4/18/2017	Crack	10/15/2017	Yes

TABLE NOTE

[1] "FR Note" indicates that this information is outside the reporting window of this semi-annual report and will be included in a future Semi-Annual Report.

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34.e [Discrepancies between Two Successive ILI Runs]

Potential data quality concerns that specifically related to the most previous assessment of the line segment were identified for one initial ILI Report during preliminary review.

Table 16: Discrepancies between two Successive ILI Runs

Table 16: Discrepancies between two Successive ILI Runs							
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Severity discrepancy?**	**Density discrepancy?**	**Type of features Requiring Excavation Discrepancy?**
3752	L0005	ENO-EMA	GEMINI	Geometry	No	Yes	No

Line 5 ENO-EMA GEMINI (Run ID 3752): This report contained a discrepancy between data provided in the Initial ILI Report and the most recent previous ILI data. The discrepancy noted was related to the density of reported Internal Diameter Reduction ("IDR") deformation features. There were three IDR features reported in the previous 2016 Geopig inspection compared to a single IDR feature reported by the 2017 Gemini caliper.

Because the density of features reported by the latest caliper ILI exceeded +/- 20 percent of the number of features previously reported, an investigation was completed to evaluate the accuracy and reliability of the data provided in the Initial ILI Report. The discrepancy was determined to be due to a difference in sensitivity of the 2017 caliper tool (as confirmed with the ILI vendor) compared to the 2016 caliper tool by the same ILI vendor.

The depth of all three features was 10.2 percent to 10.3 percent which is within a fraction of reporting threshold of ≥10 percent for IDR features. The difference in sensitivity of 2017 caliper tool caused two of the features to be sized as less than 10 percent which is reporting threshold for IDR features and thus not reportable in the 2017 feature listing. The features were visible in the raw 2017 caliper data. The discrepancy has been remedied through detailed review of features in the caliper data. No investigative digs are required as the specified precision and accuracy of the 2017 Gemini caliper tool is not affected.

34.f – g [Investigative Digs]

No investigative digs were required during this reporting period of the Consent Decree.

(III) Identification of Features Requiring Excavation

35 [Evaluation of Each Feature in Initial ILI Report for Feature Requiring Excavation]

Following each ILI tool run, Enbridge evaluated each feature identified in the Initial ILI Report to determine if the feature was a Feature Requiring Excavation ("FRE") in accordance with the Lakehead System Integrity Remediation process. The records of these evaluations were recorded in the Assessment Sheets for each ILI tool run and were referenced in the Compliance Registry Forms database.

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36 [Feature Requiring Excavation Definition]

With respect to Crack and Corrosion features, Enbridge applies three methods to identify a Feature Requiring Excavation:

(1) Enbridge estimates the lowest pressure at which the feature is predicted to rupture or leak (i.e. Predicted Burst Pressure) using the procedures set forth in Subsection VII.D.(IV) of the Consent Decree.

(2) Enbridge estimates the amount of time remaining until the feature is predicted to rupture or leak (i.e. Remaining Life) using the procedures set forth in Subsection VII.D.(VI) of the Consent Decree.

(3) Enbridge considers other unique characteristics of a feature using the criteria set forth in Subsection VII.D.(V) of the Consent Decree. These methods are outlined in the procedure, PI-37 Fitness for Service Calculations and the Lakehead System Integrity Remediation process. The records of these methods being applied are in the Assessment Sheets for each ILI tool run and were referenced in the Compliance Registry Forms database.

With respect to Geometric features, Enbridge considers other unique characteristics of the feature using the criteria set forth in Subsection VII.D.(V) of the Consent Decree. This method is outlined in the procedure, PI-37 Fitness for Service Calculations. The records of this criteria being applied are in the Assessment Sheets for each ILI tool run and were referenced in the Compliance Registry Forms.

37 [Deadlines for Adding Features Requiring Excavation on the Dig List]

Following each successful Consent Decree ILI tool run, Enbridge identified all Crack, Corrosion, and Geometric features detected by the ILI tool runs that are Features Requiring Excavation in accordance with the Lakehead System Integrity Remediation process. Enbridge added such features to an electronic list of features scheduled for excavation and repair or mitigation (i.e. Dig List) in accordance with the schedule outlined in Paragraph 37 of the Consent Decree.

At the conclusion of each ILI tool investigation all Features Requiring Excavation were added to the Dig List after the ILI tool was removed from the pipeline. All features required to be listed within 5 days were listed.

Enbridge identified all Features Requiring Excavation based on their Predicted Burst Pressure and their Remaining Life, and added these features to the Dig List within 5 days of calculating the Predicted Burst Pressure and the Remaining Life of the features in accordance with Subsection VII.D.(IV) of the Consent Decree.

Enbridge identified all Features Requiring Excavation based on reasons other than their Predicted Burst Pressure or their Remaining Life. These features were added to the Dig List within 5 days of completing the preliminary review of the Initial ILI Report, in all cases where the preliminary review did not identify any data quality concerns related to the feature.

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The following table identifies the Features Requiring Excavation discovered during the reporting period of this Semi-Annual Report. Priority notifications are excluded from these tables as they are included in Paragraph 33 of this Semi-Annual Report. ILI tool runs that did not discover any Features Requiring Excavation are excluded from this table. Details on the process to identify Features Requiring Excavation are included within the ILI Assessment Sheets.

Table 17: Deadlines for Placing Features Requiring Excavation on the Dig List

Table 17: Deadlines for Placing Features Requiring Excavation on the Dig List												
Tool Run ID	**Line**	**Segment**	**Tool**	**Threat Type**	**Pull Date**	**Burst Pressure Calculation Date**	**Remaining Life Calculation Date**	**Other Features Identified**	**Number of Features Identified**	**Date All Features Added to Dig List**	**Within 180 Days of Tool Pull Date?**	**Within 5 Days of Calculations?**
3662[1]	L0005	PE-IR	USWM+	Corrosion	7/12/2017	10/27/2017	10/27/2017	10/27/2017	8	10/27/2017	Yes	Yes
2215	L0005	BC-RW	GEMINI	Geometry	8/24/2017	NA	NA	11/15/2017	1	11/15/2017	Yes	Yes

TABLE NOTE:

[1] The data quality issue identified on this run was resolved on November 29, 2017. This did not impact the timeliness of adding Features Requiring Excavation to the Dig List.

38 [Dig List Actions]

38.a [Excavation and Repair Deadlines]

For each Feature Requiring Excavation placed on the Dig List, Enbridge established excavation and repair deadlines that accounted for the level of the threat posed by the feature and that were within the number of days allotted for excavation and repair of the feature, as set forth in Subsection VII.D.(V) of the Consent Decree. If a feature met more than one dig-selection criteria, Enbridge set the excavation and repair deadline in accordance with the shortest applicable timetable set forth in Subsection VII.D.(V) of the Consent Decree. This requirement is outlined in the Lakehead System Integrity Remediation process and deadlines can be found in the approved PI Listing for each ILI tool run.

38.b [Establish Pressure Restrictions if Required]

The Enbridge processes, Lakehead System Integrity Remediation process and procedure PI-04 (Impose, Revise and Remove Pressure Restrictions) outline how any pressure restrictions required for Features Requiring Excavation are established pursuant to Subsection VII.D.(V) of the Consent Decree.

In any case a Feature Requiring Excavation is subject to more than one pressure restriction under Subsection VII.D.(V) of the Consent Decree; Enbridge established the pressure restriction that results in the lowest operating pressure at the location of the feature.

The "point pressure restriction values" requirements were satisfied by limiting the discharge pressure at the nearest upstream pump station to a level that assured compliance with the point pressure restriction value at the location of the feature.

39.a - b [Field Measurements of Excavated Features]

The process to adhere to the requirements of Paragraph 39 is documented in the Book 3, Operations and Maintenance Manuals (OMMs), B3_05-01-01 through B3_05-03-08.

Following this process, Enbridge excavates and repairs or mitigates all identified Features Requiring Excavation on the pipeline that were the subject of the ILI, in accordance with Subsection VII.D.(V) of the Consent Decree.

During excavations for Features Requiring Excavation and any additional segments of pipeline, including investigative digs pursuant to Subparagraph 34.e of the Consent Decree; Enbridge obtained and recorded field measurements of all applicable features on the excavated segments and these were stored in OneSource as per requirements in the Consent Decree, Paragraph 77.

The process to adhere to the requirement in Subparagraph 39.a is documented in the Lakehead System Integrity Remediation process.

During the reporting period of this Semi-Annual Report, Enbridge didn't discover any pipe segments that contained a high volume of unreported features.

40 [Field Data Comparison to ILI Data]

The process to adhere to the requirements of Paragraphs 40, 40.a, 40.b, 40.c, is documented in the Lakehead System Integrity Remediation process. There were no deadlines that fell within this reporting period related to these Subparagraphs.

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41 [ILI Electronic Records]

Appendix B to the Lakehead System Integrity Program Logistics Exception process includes a table summarizing the electronic record repositories to meet the 14 criteria. These were uploaded to OneSource per Subparagraph 78.a.

For each ILI investigation conducted during this reporting period, Enbridge maintained electronic records relating to ILI data, including, but not limited to, all 14 categories of information listed in Paragraph 41 of the Consent Decree.

Enbridge procedures require that such ILI data records be maintained for at least 5 years after termination of the Consent Decree.

(IV) Predicted Burst Pressure/Fitness for Service

42 [Predicted Burst Pressure]

Enbridge calculated the Predicted Burst Pressure of all Crack and Corrosion features identified by ILI tools, in accordance with the requirements of Subsection VII.D.(IV) of the Consent Decree which are reflected in the Lakehead System Integrity Remediation process.

43 [Predicted Burst Pressure Definition]

The Lakehead System Integrity Remediation process defines the Predicted Burst Pressure of a feature as, the lowest pressure area in the pipeline at the location of the feature that is predicted to result in failure of the feature.

Enbridge calculated the Predicted Burst Pressure of features in accordance with the inputs and procedures in Appendix B of the Consent Decree, which is consistent with procedures outlined in the Lakehead System Integrity Remediation process.

The ILI assessment sheets documented all the Burst Pressure calculations, including the methodology and all the inputs as stated above.

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44.a – b [Initial Predicted Burst Pressure Calculations and Initial Remaining Life Calculations]

The following table summarizes the timelines for completing initial Predicted Burst Pressure calculations and initial Remaining Life calculations for all Crack or Corrosion features identified on reports that were received prior to October 23, 2017.

Table 18: Initial Predicted Burst Pressure and Initial Remaining Life Calculations

Table 18: Initial Predicted Burst Pressure and Initial Remaining Life Calculations											
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Pull Date**	**Date Preliminary Review Completed**	**Data Quality Concerns?**	**Calculation Deadline (1)**	**Calculation Deadline (2)**	**Burst Pressure Calculation Date**	**Remaining Life Calculation Date**
3752	L0005	ENO-EMA	GEMINI	Corrosion	4/12/2017	6/28/2017	No	8/23/2017[1]	10/4/2017	6/29/2017	6/29/2017
3753	L0005	ENO-EMA	UCc	Crack	4/19/2017	6/1/2017	No	7/27/2017[1]	10/11/2017	6/5/2017	6/2/2017
3662	L0005	PE-IR	USWM+	Corrosion	7/12/2017	10/27/2017	Yes	1/24/2018[2]	1/3/2018	10/27/2017	10/27/2017
3754	L0005	WNO-WMA	GEMINI	Corrosion	4/11/2017	6/28/2017	No	8/23/2017[1]	10/3/2017	6/29/2017	6/29/2017
3755	L0005	WNO-WMA	UCc	Crack	4/18/2017	6/1/2017	No	7/27/2017[1]	10/10/2017	6/1/2017	6/2/2017

TABLE NOTES:

[1] Four Line 5 ILI runs at the Straits were completed in April 2017 (before the Consent Decree Effective Date May 23, 2017) and were done under the requirements of p 70 of the Consent Decree.

[2] Calculation Deadline (1) was calculated eight weeks after the data quality issue was resolved on November 29, 2017 which is outside the reporting period of this Semi-Annual Report.

As shown, all calculations were completed no later than the earlier of (1) eight (8) weeks after completing data quality review with respect to the feature and/or pipeline section where the feature is located; or (2) 175 Days after the ILI tool was removed from the pipeline at the conclusion of the ILI run.

Enbridge did not receive any Crack or Corrosion priority notifications during this reporting period. As a result, the two-day timeline specified in Subparagraph 44.a. was not triggered.

45 [Retention of Electronic Records]

As outlined in the Lakehead System Integrity Remediation process, Enbridge procedures require that the company maintain electronic records documenting all Predicted Burst Pressure calculations, and all Remaining Life calculations, including inputs and dates the calculations were completed with respect to particular features, until five years after termination of the Consent Decree.

(V) Dig Selection Criteria

46 [Dig Selection Criteria]

Where Enbridge has identified features meeting dig selection criteria, it has within set timeframes excavated, and repaired or mitigated these features as specified in the Tables 1 through 5 in the Consent Decree. At the time of excavation, Enbridge also repaired or mitigated the features based on an analysis of field measurement values for feature length and depth or other field observations, rather than being placed on the Dig List based on an analysis of ILI-reported values for feature length and depth.

During this reporting period, Enbridge followed the Lakehead System Integrity Remediation process, which meets requirements set out in Paragraph 46 of the Consent Decree.

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Table 19: Identified Digs

Table 19: Identified Digs								
Dig ID	**Line**	**Segment**	**Girth Weld**	**Tool Run ID**	**Technology**	**Date of Discovery / Feature Added to Dig List**	**Repair / Mitigation Deadline**	**Date of Repair / Mitigation**
22956	L0005	BC - RW	56680	2215	MFL and Geometry	11/15/2017	1/14/2018	FR Note[1]
22847	L0005	PE – IR	20160	3662	UT Metal Loss	10/27/2017	10/27/2018	FR Note[1]
22848	L0005	PE – IR	131800	3662	UT Metal Loss	10/27/2017	11/26/2017	11/6/2017
22849	L0005	PE – IR	183400	3662	UT Metal Loss	10/27/2017	10/27/2018	FR Note[1]
22850	L0005	PE – IR	184460	3662	UT Metal Loss	10/27/2017	10/27/2018	FR Note[1]
22851	L0005	PE – IR	201490	3662	UT Metal Loss	10/27/2017	10/27/2018	FR Note[1]
22852	L0005	PE – IR	201610	3662	UT Metal Loss	10/27/2017	10/27/2018	FR Note[1]
22853	L0005	PE – IR	207190	3662	UT Metal Loss	10/27/2017	10/27/2018	FR Note[1]
22854	L0005	PE – IR	242570	3662	UT Metal Loss	10/27/2017	4/25/2018	FR Note[1]

TABLE NOTES:

[1] "FR Note" indicates that this information is outside the reporting window of this semi-annual report and will be included in a future Semi-Annual Report.

Where applicable, Enbridge established pressure restriction requirements and imposed Point Pressure Restrictions ("PPRs") in accordance with Consent Decree requirements as summarized in the following table. Note that the imposition deadline for 3 of the PPRs was Sunday, October 29, 2017, therefore, the deadline was moved to the following Monday, October 30, 2017.

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Table 20: Pressure Restrictions

Table 20: Pressure Restrictions								
PR ID	**Line**	**Segment**	**Girth Weld**	**Date of Discovery**	**Repair / Mitigation Deadline (specified in Tables 1 to 5 of the Consent Decree)**	**PPR Imposition Date**	**Repair / Mitigation Date**	**PPR Removal Date**
27022	L0005	PE-IR	20160	10/27/2017	10/27/2018	10/30/2017	FR Note[1]	FR Note[1]
27023	L0005	PE-IR	131800	10/27/2017	11/26/2017	10/30/2017	11/6/2017	11/6/2017
27024	L0005	PE-IR	242570	10/27/2017	4/25/2018	10/30/2017	FR Note[1]	FR Note[1]
27050[2]	L0005	BC-RW	56680	11/15/2017	1/14/2018	11/17/2017	FR Note[1]	FR Note[1]

TABLE NOTES:

[1] "FR Note" indicates that this information is outside the reporting window of this semi-annual report and will be included in a future Semi-Annual Report.

[2] During the reporting period of this Semi-Annual Report, Enbridge implemented an alternate pressure restriction on pipeline joint 56680 on Line 5 BC-RW segment on November 17, 2017, based on a completed Engineering Assessment dated on November 17, 2017. On November 27, 2017, Enbridge provided EPA with written notification of this alternate pressure restriction based on the Engineering Assessment. The Alternate Plan was submitted after this reporting period. As a result, details of the Alternate Plan will be reported in the next Semi-Annual Report.

47 [Crack Features]

For this reporting period, no crack Features Requiring Excavation were identified.

48 [Crack Feature Mitigation Timelines]

For this reporting period, no crack Features Requiring Excavation were identified.

49 [Dig Timeline Extensions]

During this reporting period, Enbridge did not apply any dig deadline extensions from 180 day to a 365 day. As a result, Subparagraphs 49.b through 49.e are not applicable.

50 [Corrosion Features]

Enbridge has set schedules for the excavation and repair or mitigation of each Corrosion feature that meets one (or more) of the Dig Selection Criteria set forth in Table 1 of the Consent Decree, in accordance with the timeframes specified in column 2 of Table 1 of the Consent Decree for corrosion features located in any HCA, and the timeframes specified in column 3 of Table 1 for corrosion features not located within an HCA. The following table summarizes the segments containing each Corrosion feature that meets the above criteria.

Table 21: Corrosion Features Requiring Excavation

Table 21: Corrosion Features Requiring Excavation						
Dig ID	**Line**	**Segment**	**Girth Weld**	**Date of Discovery / Feature Added to Dig List**	**Repair / Mitigation Deadline**	**Date of Repair / Mitigation**
22847	L0005	PE – IR	20160	10/27/2017	10/27/2018	FR Note[1]
22850	L0005	PE – IR	184460	10/27/2017	10/27/2018	FR Note[1]
22851	L0005	PE – IR	201490	10/27/2017	10/27/2018	FR Note[1]
22853	L0005	PE – IR	207190	10/27/2017	10/27/2018	FR Note[1]
22854	L0005	PE – IR	242570	10/27/2017	4/25/2018	FR Note[1]

TABLE NOTES:

[1] "FR Note" indicates that this information is outside the reporting window of this semi-annual report and will be included in a future Semi-Annual Report.

Enbridge also issued dig packages to excavate and repair or mitigate Corrosion features that intersected or interacted with Crack features, dents, or other Geometric features, and established appropriate pressure restrictions for such interacting features, as provided in Table 5 and Paragraph 59 of the Consent Decree. For more information about these interacting features, see Paragraph 59 in this Semi-Annual Report. These features are not included in the above table.

51 [Corrosion Feature Mitigation Timelines]

During this reporting period, Enbridge determined the deadline for each feature repair / mitigation as the shortest deadline specified in Tables 2, 3, or 5 of the Consent Decree, and Enbridge established the lowest operating pressure at the location of the feature which is subject to more than one pressure restriction, as outlined in the Lakehead System Integrity Remediation process.

52 [Corrosion Feature Pressure Restrictions]

As per the Lakehead System Integrity Program Logistics Exception process, Enbridge established pressure restrictions within the timeframes identified in Table 2 of the Consent Decree and specified in Subparagraph 52.a and 52.b of the Consent Decree (i.e. within 2 days after determining that any Corrosion feature had a depth greater than 80 percent of the wall thickness of the joint where the feature is located, or within 2 days after determining that any feature had a Rupture Pressure Ratio ("RPR") less than 1.00 or a Predicted Burst Pressure that is less than 1.39 x MOP).

The following table lists the pressure restrictions imposed due to these criteria in this reporting period of the Semi-Annual Report. Note that the imposition deadline for the PPRs was Sunday October 29, 2017 therefore, the deadline was moved to the following Monday, October 30, 2017.

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Table 22: Corrosion Feature Pressure Restrictions

Table 22: Corrosion Feature Pressure Restrictions									
PR ID	**Line**	**Segment**	**Girth Weld**	**Date of Discovery**	**Repair / Mitigation Deadline (specified in Tables 1 to 5 of the Consent Decree)**	**PPR Set**	**PPR Imposition Date**	**Repair / Mitigation Date**	**PPR Removal Date**
27022	L0005	PE-IR	20160	10/27/2017	10/27/2018	834 psi	10/30/2017	FR Note[1]	FR Note[1]
27024	L0005	PE-IR	242570	10/27/2017	4/25/2018	696 psi	10/30/2017	FR Note[1]	FR Note[1]

TABLE NOTES:

[1] "FR Note" indicates that this information is outside the reporting window of this semi-annual report and will be included in a future Semi-Annual Report.

53 [Dig Selection Criteria for Axial Slotting, Axial Grooving, Selective Seam Corrosion and Seam Weld anomaly A/B Features]

During this reporting period, no Axial Slotting, Axial Grooving and Selective Seam Corrosion, and Weld Anomaly A/B Features Requiring Excavation were identified as the result of ILIs conducted since the Effective Date.

54 [Pressure Restrictions for Axial Slotting, Axial Grooving, Selective Seam Corrosion and Seam Weld anomaly A/B Features]

During this reporting period, no pressure restrictions were required as a result of Axial Slotting, Axial Grooving, Selective Seam Corrosion features and Seam Weld anomaly A/B features identified in Table 3 of the Consent Decree.

55 [Dig Selection Criteria for Dents and other Geometric Features]

As outlined in the Lakehead System Remediation Exceptions process and documented in the ILI Assessment Sheets, Enbridge will excavate and repair or mitigate each dent and other geometric feature that met one or more of the Dig Selection Criteria set forth in Table 4 of the Consent Decree, and establish pressure restrictions for identified Geometric features as provided in Paragraph 57. Enbridge will meet with the timeframes specified in column 2 of Table 4 of the Consent Decree for features located within a High Consequence Area ("HCA"), or timeframes specified in column 3 of Table 4 for features not located within an HCA.

There was no dent or other geometric features meeting Dig Selection Criteria during the reporting period of this Semi-Annual report.

Enbridge excavated and repaired or mitigated dents or other Geometric features that intersected or interacted with Crack features or Corrosion features, and established appropriate pressure restrictions for such interacting features, as provided in Table 5 and Paragraph 59 of the Consent Decree. For more information, see Paragraph 59 of this Semi-Annual Report.

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56 [Dents and other Geometric Feature Mitigation Timelines]

As outlined in the Lakehead System Remediation Exceptions process and documented in the ILI Assessment Sheets, Enbridge will determine the deadline of a dent or other geometric feature repair or mitigation as the shortest deadline. Enbridge will also establish the lowest operating pressure at the location of the feature which was subject to more than one pressure restriction.

As noted in the preceding Paragraph, there was no dent or other geometric features meeting Dig Selection Criteria during the reporting period of this Semi-Annual report.

57 [Dents and other Geometric Feature Pressure Restrictions]

There were no dent or geometric features requiring pressure restrictions during the reporting period of this Semi-Annual report.

As outlined in the Lakehead System Remediation Exceptions process and documented in the ILI Assessment Sheets, Enbridge will establish pressure restrictions within the timeframes identified in Table 4 and specified in Paragraph 57 of the Consent Decree:

a) Within 2 days after determining that any dent feature had a depth greater than 6 percent of nominal pipeline diameter (i.e. whether the dent was located on the top or bottom of the pipeline), Enbridge limited the operating pressure at the location of the feature to not more than 80 percent of the highest actual operating pressure at that location during the last 60 days
b) After identifying any dent features located on the top of the pipeline that had a depth that was greater than or equal to 3 percent of the nominal diameter of the pipeline; in the case of a pipeline with a nominal diameter greater than or equal to 12 inches, or 0.250 inches; in the case of any pipeline with a nominal diameter less than 12 inches; Enbridge limited the operating pressure at the location of the feature to not more than 80 percent of the highest actual operating pressure at that location during the last 60 days if the feature was not repaired or mitigated within the applicable timeframe specified in Table 4 of the Consent Decree.

58 [Dig Selection Criteria for Interacting Features]

Within 30 days after receiving any Initial ILI Report, Enbridge reviewed OneSource (i.e. integrated database specified under Paragraph 74 of this Semi-Annual Report) for the purpose of determining whether any feature reported by the ILI tool intersected or interacted with a feature of a different feature type that was detected during a previous ILI Tool Run but not repaired or mitigated. Enbridge excavated and repaired all such intersecting/interacting features that met the dig selection criteria set forth in Table 5 of the Consent Decree, within the applicable timeframes identified in columns 2 and 3 of Table 5 of the Consent Decree. Enbridge also established pressure restrictions as provided in Table 5 and Paragraph 59 of the Consent Decree. For more evidence, see Paragraph 59 of this Semi-Annual Report.

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The following table lists the intersecting/interacting features that were identified for excavation.

Table 23: Interacting Features Requiring Excavation

Table 23: Interacting Features Requiring Excavation									
Dig ID	**Line**	**Segment**	**Girth Weld**	**Tool**	**Report Received Date**	**OneSource Load Date**	**Date of Discovery / Feature Added to Dig List**	**Repair / Mitigation Deadline**	**Date of Repair / Mitigation**
22956	L0005	BC - RW	56680	GEMINI	10/23/2017	10/27/2017	11/15/2017	1/14/2018	FR Note[1]
22848	L0005	PE - IR	131800	USWM+	9/29/2017	10/4/2017	10/27/2017	11/26/2017	11/6/2017
22849	L0005	PE - IR	183400	USWM+	9/29/2017	10/4/2017	10/27/2017	10/27/2018	FR Note[1]
22852	L0005	PE - IR	201610	USWM+	9/29/2017	10/4/2017	10/27/2017	10/27/2018	FR Note[1]

TABLE NOTES:

[1] "FR Note" indicates that this information is outside the reporting window of this semi-annual report and will be included in a future Semi-Annual Report.

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59 [Pressure Restrictions for Interacting Features]

Enbridge establishes the pressure restrictions within the timeframes identified in Table 5 and specified in Subparagraphs 59.a and 59.b of the Consent Decree. Within 2 days after determining that any intersecting or interacting Crack, and/or Corrosion feature had a Predicted Burst Pressure that is less than 1.25 x Established MOP, Enbridge limited operating pressure at the location of the feature to not more than 80 percent of the Predicted Burst Pressure. Within 2 days after determining that any dent had an indication of cracking, metal loss or a stress riser, Enbridge limited operating pressure at the location of such feature to not more 80 percent of the highest actual operating pressure at the location of the feature over the last 60 days.

Table 24: Interacting Features Pressure Restrictions

Table 24: Interacting Features Pressure Restrictions									
PR ID	**Line**	**Segment**	**Girth Weld**	**Date of Discovery**	**Repair / Mitigation Deadline (specified in Tables 1 to 5 of the Consent Decree)**	**PPR Set**	**PPR Imposition Date**	**Repair / Mitigation Date**	**PPR Removal Date**
27050[1]	L0005	BC-RW	56680	11/15/2017	1/14/2018	487 psi	11/17/2017	FR Note[3]	FR Note[3]
27023[2]	L0005	PE-IR	131800	10/27/2017	11/26/2017	80% Last 60 Day High	10/30/2017	11/6/2017	11/6/2017

TABLE NOTES:

[1] The PPR Set value is an alternate pressure restriction. Instead of imposing a PPR of 80 percent of 60 day high, different PPR criteria of 50 percent specified minimum yield strength ("SMYS") a deviation from the Consent Decree was applied based on a completed Engineering Assessment to ensure the safety of the feature and pipeline, as stated in the above Paragraph 46 of this Semi-Annual Report.

[2] When the imposition deadline for Point Pressure Restrictions ("PPRs") was Sunday October 29, 2017, the deadline was moved to the following Monday, October 30, 2017 as per the Consent Decree.

[3] "FR Note" indicates that this information is outside the reporting window of this semi-annual report and will be included in a future Semi-Annual Report.

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(VI) Remaining Life Determinations/Re-inspection Intervals

60 [Remaining Life]

Enbridge completed the Remaining Life calculation for all detected crack and corrosion features that did not meet any of the dig selection criteria. These calculations are in the ILI Assessment Sheets. Paragraph 44 of the Consent Decree discusses how all calculations are completed within the required timeframes. The following table summarizes the remaining life calculations completed during this reporting period.

Table 25: Remaining Life Calculations

Table 25: Remaining Life Calculations					
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Remaining Life Calculation Completion Date**
3752	L0005	ENO-EMA	GEMINI	Corrosion	6/29/2017
3753	L0005	ENO-EMA	UCc	Crack	6/2/2017
3662	L0005	PE-IR	USWM+	Corrosion	10/27/2017
3754	L0005	WNO-WMA	GEMINI	Corrosion	6/29/2017
3755	L0005	WNO-WMA	UCc	Crack	6/2/2017

61 [Remaining Life Clarifications]

There are no injunctive measures associated with this Paragraph.

62 [Operating Pressure Used when Determining the Remaining Life of Crack Features]

Enbridge monitors and records the actual operating parameters of pipeline or pipeline segment pressure monthly to be used in the Crack feature Remaining Life Calculation as outlined in the Lakehead System Integrity Remediation process listed below:

a. In determining the number and magnitude of pressure cycles, Enbridge uses the worst cycling quarter between the most recent valid Crack ILI tool run and the immediate prior valid Crack ILI run. The worst cycling quarter reflects the worst combination of cycling frequency and cycling magnitude for the applicable line or line segment during the period between the successive ILI runs.
b. Enbridge did not increase the operating pressure limit in any segment of a Lakehead System pipeline after determining the Remaining Life of Crack features in accordance with this Paragraph 62.

63 [Crack Feature Remaining Life Calculations]

Enbridge used a fatigue crack growth model and a Stress Crack Corrosion (“SCC”) growth model, and determined the remaining life with the model yielding the fastest projected growth rate and the shortest Remaining Life as documented in the Lakehead System Integrity Remediation process Table 2, Step 7.2.

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The application of fatigue crack growth model and an SCC growth model to yield the fastest projected growth rate and the shortest Remaining Life is illustrated in the ILI Assessment sheets.

Paragraph 44 of the Consent Decree discusses how all calculations are completed within the required timeframes. The following table summarizes the remaining life calculations completed during this reporting period.

Table 26: Crack Feature Remaining Life Calculations

Table 26: Crack Feature Remaining Life Calculations					
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Remaining Life Calculation Completion Date**
3753	L0005	ENO-EMA	UCc	Crack	6/2/2017
3755	L0005	WNO-WMA	UCc	Crack	6/2/2017

64 [Corrosion Growth Rate]

Enbridge used a Corrosion Growth Rate ("CGR") based on back-to-back corrosion runs (if available), or a historical CGR estimate for newly constructed pipeline or pipeline segment with no less than 0.005 inch per year.

The application of a CGR based on back-to-back corrosion runs, or a historical CGR estimate for newly constructed pipeline or pipeline segment with no less than 0.005 inch per year, is illustrated in more detail in the ILI Assessment sheets.

65 [Maximum Interval Between Successive ILIs]

As of the end of the reporting period of this Semi-Annual Report, all in-line inspections required as of that date under Paragraphs 65 of the Decree have been completed, with the possible exception of inspections on Line 2. The schedule for testing of Line 2 is addressed in the Stipulation and Agreement agreed to by the parties and expected to be submitted to the court in the near future. Enbridge and EPA have agreed on the applicability of Paragraph 65 in the Stipulation and Agreement.

66 [Maximum Interval Between Successive ILIs]

Enbridge determined the interval between successive Crack, Corrosion and Geometry ILIs which do not exceed 5 years for all Lakehead pipeline segments. The 12-month ILI schedule is included in Paragraph 29 of this Semi-Annual Report and the runs completed during the reporting period of this Semi-Annual Report are included in Paragraph 28.

ILIs will be completed on annual basis for Line 3 after December 31, 2017 until the Original US Line 3 is taken out of service, as reported in Paragraph 22 of this Semi-Annual Report.

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Section E – Measures to Prevent Spills in the Straits of Mackinac

67 [Applicability]

Enbridge's implementation of the requirements of Subsection VII.E (Paragraphs 67 to 73) to the two 4.09-mile, 20 inch diameter Dual Pipelines that cross the Straits of Mackinac ("Straits") is set forth in the following sections (68 [Span Management]).

68 [Span Management]

68.a [Integrity Protection from Currents, Ice, Spans or Vessel Anchors – Span Management Program]

The Dual Pipelines are continuously buried near the shoreline areas, which eliminates the potential for impairment of the integrity of the Dual Pipelines caused by ice. Enbridge operates and maintains the Dual Pipelines to ensure that currents or ice do not impair the integrity of either pipeline

Enbridge operates and maintains the Dual Pipelines to ensure the pipelines are well-supported in areas where the pipeline is suspended above the lake bed ("spans") in compliance with the conditions of the 1953 easement with the State of Michigan and to eliminate potential impairment of the integrity of the Dual Pipelines caused by currents. Enbridge currently performs underwater inspections of the Dual Pipelines every two years to assure that span lengths meet required standards and conditions. In 2016, Enbridge installed four screw anchors to support the Dual Pipelines where span lengths of more than 75 feet were observed. Anchors installed in 2016 were 10-foot-long steel screws augured into the lake bed on either side of the parallel lines, and held a steel saddle that supports the lines as per Subparagraph 68.b. Enbridge currently is in discussions with EPA and DOJ to develop additional criteria designed proactively to prevent shorter spans from growing to exceed 75 feet. Based on discussions to date, Enbridge expects to install additional screw anchors in 2018.

Further, Enbridge operates and maintains the Dual Pipelines to reduce the risk of a vessel's anchor puncturing, dragging or otherwise damaging the pipeline. In addition to burial of the Dual Lines where water depth is less than 65 feet, "DO NOT ANCHOR" signage is located on the north side of the Straits of Mackinac, to warn vessels of the existence of infrastructure under the lake.[4]

Enbridge Operations meets with the US Coast Guard ("USCG") at Sault Ste. Marie once per year, and attends Northern Michigan Area planning meetings twice per year that are facilitated by the USCG and the US Environmental Protection Agency ("EPA").

In addition to the requirements in Paragraph 68, Enbridge now conducts annual In-Line Inspections ("ILI") on the Dual Pipelines including Geometry ILIs. These inspections would identify mechanical damage such as anchor damage to the integrity of the pipelines. There were no indications of anchor damage from these inspections.

68.b [Screw Anchor Support]

Visual underwater inspections performed in June 2016 confirmed that the Dual Pipelines located within 65-feet of water or less were continuously covered on the floor of the Straits.

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[4] Enbridge is in the process of evaluating measures to mitigate potential vessel anchor strikes, consistent with its agreement with the State of Michigan.

On November 5, 2016, Enbridge completed the installation of four screw anchors (3 on the West Pipeline and 1 on the East Pipeline) that support the pipelines in place by means of a steel saddle connected to two ten-foot-long steel screws. The screws are augured into the lake floor of the Straits on either side of the pipelines. The installations were reported to EPA on January 4, 2017, in a report entitled "2016 Enbridge Energy SOM Report Final 01-03-2017." The anchors installed met the criteria set forth in Paragraph 68.b.

Enbridge and EPA filed with the Court the First Modification to the Consent Decree on June 1, 2017. The First Modification revised the deadline for installing screw anchors based on the 2016 visual inspection. The First Modification states that Enbridge has until October 1, 2018, to install screw anchors on uncovered portions of the Dual Pipelines that (1) are located in water deeper than 65 feet, and (2) are not subject to requirements applicable to portions of the Dual Pipelines where the pipe is suspended above the lakebed without supports for more than 75 feet.

68.c [Periodic Visual Inspections]

Enbridge completed the periodic visual inspection of each of the Dual Pipelines scheduled for 2016, by using underwater Remotely Operated Vehicle ("ROV"), as well as, Autonomous Underwater Vehicle ("AUV"). AUV data collection services took place between June 3, 2016 and June 11, 2016 and ROV and video inspection services took place between June 13, 2016 and June 14, 2016, in advance of the July 31, 2016 timeline required by Subparagraph 68.c.

As part of the initial visual inspection of each of the Dual Pipelines, Enbridge also completed a survey of biota, including but not limited to mussels, present on the Dual Pipelines. This survey was completed on June 16, 2016. The findings of this survey were summarized in the report, 20160729_Enbridge Line 5 Visual Biota Survey of Straits of Mackinac Crossing.

68.d [Underwater Inspection Repairs]

Following the June 2016 underwater inspection, the underwater inspection contractor analyzed the inspection data in detail. As a result, four (4) spans were reported to have span lengths that exceeded 75-feet, as called for in the 1953 easement.

On July 26, 2016, Enbridge submitted a joint permit application to the US Army Corps of Engineers ("COE") and the State of Michigan Department of Environmental Quality ("MDEQ") to install 22 screw anchors on the Dual Pipelines. The application sought permits for four (4) screw anchors for which span-length exceeded 75-feet, and for eighteen (18) additional screw anchors.

Enbridge planned to undertake repairs to address such areas no later than 60 Days after the completion of the inspection and provided complete and adequate documents and information as required by the permit application. When it became apparent that the permit would not be approved in time for Enbridge to undertake the repairs within 60 days after the completion of the inspection, Enbridge submitted a force majeure notification to the EPA under Section XII of the Consent Decree. See letter from Steptoe & Johnson LLP to EPA (Sept. 8, 2016) (notice of force majeure) and letter from EPA to Enbridge (Sept. 28, 2016) (agreeing that extension of time based on circumstances presented is appropriate).

Permits for installing four (4) screw anchors at the four (4) locations where span-lengths exceeded 75-feet were approved by MDEQ on October 3, 2016 and by the US COE on October 18, 2016.

The installation of the four (4) screw anchors started on October 30, 2016 and was completed on November 5, 2016. The schedule for installation of additional anchors was then revised in light of the First Modification to the Consent Decree, filed on June 1, 2017.

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68.e [Screw Anchor Report]

Enbridge submitted a report summarizing the findings of the inspection and repair work, titled "2016 Enbridge Energy SOM Report Final 01-03-2017," to the EPA on January 4, 2017. This Report was submitted within 60 days after completing the repairs on November 5, 2016, as required pursuant to Subparagraph 68.e.

68.f [Periodic Visual Inspections of the Dual Pipelines]

In addition to the visual inspections of the Dual Pipelines required every 2 years, Enbridge visually inspected all pre-existing Screw Anchor locations using ROV, and had divers further inspect a portion of the Screw Anchor locations.

Enbridge plans to complete another underwater visual inspection of each of the Dual Pipelines on or before July 31, 2018 as required by Subparagraph 68.f.

69.a [Biota Investigation]

On August 14, 2017, Enbridge started the biota investigation work in accordance with the schedule set out in the Biota Investigation Work Plan ("BIWP") described in Paragraph 69.b and approved by the EPA on June 13, 2017. The work plan identifies the necessary steps for Enbridge to further study the impact of biota and mussels on the Dual Pipelines. This work includes review of the potential for the biota to create a corrosive environment and the potential impact of the weight of the biomass on the pipelines. Once this work is completed Enbridge will, consistent with the approved work plan schedule, submit a final report to EPA that describes the findings and results of the investigation conducted.

69.b [Biota Investigation Work Plan]

On September 27, 2016, Enbridge submitted to EPA the BIWP required under Subparagraph 69.a. This submission occurred 60 days after the assessment of the 2016 visual inspection results completed on July 29, 2016.

The BIWP (a) identified the employees, consultants and contractors who would perform the investigation; (b) described the methods that would be used to inspect, sample, and evaluate whether biota have any adverse impact on pipeline coatings or on the Dual Pipelines; and (c) included a schedule for completing the investigation.

The BIWP was revised based on comments provided by the EPA and ITP and resubmitted on May 18, 2017 (BIWP Revision 2). EPA approved BIWP Revision 2 on June 13, 2017.

69.c [Biota Work Plan Implementation]

Enbridge is on schedule to comply with the time-frames stated in Paragraph 69.c of the Consent Decree. Enbridge started the biota investigation on August 14, 2017, in accordance with the schedule set out in the BIWP Revision 2 described in Paragraph 69.b, and completed a portion of the activities specified in the BIWP in the construction season of 2017.

The 2017 completed activities included collection of the Biota samples, and lab testing of the collected Biota samples as specified in the BIWP Revision 2. During the coating inspection specified by BIWP Revision 2, bare metal was found at 3 BIWP locations, and calcareous deposits were observed at 6 BIWP locations.

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Enbridge submitted the Coating Repairs Work Plan ("CRWP") Line 5 Dual Pipelines, Version 3, to EPA on September 13, 2017. EPA initially approved the CRWP with conditions on September 14, 2017, and then subsequently modified the conditions on September 20, 2017.

Enbridge executed the coating repairs specified in CRWP and completed 7 repairs in the 2017 construction season.

Enbridge expects to complete the remaining activities in 2018.

Enbridge now plans to submit a final report to EPA that sets forth the findings and results of the investigation within 60 days after the completion of the Biota Investigation, as required pursuant to Subparagraph 68.c.

70 [In-Line Inspections of the Dual Pipelines]

The ILI schedule submitted in accordance with Paragraph 29 provided for Enbridge to complete valid ILIs of the Dual Pipelines in accordance with the schedule outlined in Subparagraphs 70.a and 70.b.

70.a [Corrosion and Circumferential Crack ILI Timing]

Enbridge completed valid ILIs of the Dual Pipelines for Corrosion features on April 12, 2017. Enbridge completed valid ILIs of the Dual Pipelines for Crack features on April 19, 2017. These ILI runs were completed before the deadline of July 31, 2017, as per Subparagraph 70.a.

70.b [Geometric Feature ILI Timing]

Enbridge completed valid ILIs of the Dual Pipelines for Geometric features on April 12, 2017. This inspection was timely under Subparagraph 70.b.

71 [Investigation and Repair of Axially-aligned Features]

Enbridge elected pursuant to Subparagraph 71.b. to conduct a Hydrostatic Pressure Test of the Dual Pipelines in lieu of conducting an investigation using an ILI tool appropriate for detecting and sizing axially-aligned crack features pursuant to Subparagraph 71.a., The Hydrostatic Pressure Tests of the two Dual Pipelines were completed on June 10, 2017 and June 16, 2017 (before December 31, 2017, as required by the Decree).

The Hydrostatic Pressure Tests conducted complied with the requirements set forth in Section VII.C (Hydrostatic Pressure Testing) of the Consent Decree.

Enbridge provided U.S. Environmental Protection Agency ("EPA") with the Line 5 Straits of Mackinac Hydrostatic Pressure Test Plan and procedures on March 1, 2017, which was 90 Days before commencing the hydrostatic pressure test. On September 18, 2017, Enbridge submitted to EPA reports that summarized the results of the Hydrostatic Pressure Tests. The reports were entitled "Line 5 - East Straits of Mackinac Hydrostatic Test" and "Line 5 - West Straits of Mackinac Hydrostatic Test". The reports submitted were timely under the procedures specified in Subparagraph 25.f.

72 [Pipeline Movement Investigation]

The requirements of Paragraph 72 have not been triggered, because no crack features have been found in the Dual Pipelines that meet the excavation criteria specified in the Consent Decree Table 1 (Criteria and Timelines

Governing Excavation, Repair, and Imposition of Pressure Restrictions for Crack Features) and Table 5 (Criteria and Timelines Governing Excavation and Repair of Intersecting or Interacting Feature Types).

73 [Quarterly Inspections Using Acoustic Leak Detection Tool]

In 2017, Enbridge conducted four inspections of the Dual Pipelines using an acoustic ILI tool that is capable of detecting sounds associated with small leaks as the tool travels through the pipelines, as shown in the following table.

The acoustic inspections of the Dual Pipelines revealed no auditory signals that would indicate leaks at the time of inspection.

Table 27: Acoustic Leak Detection

Table 27: Acoustic Leak Detection		
Segment	**Quarter**	**Leak Detection Tool Run Date**
West Pipeline	Q1	03/07/2017
East Pipeline	Q1	03/08/2017
West Pipeline	Q2	05/15/2017
East Pipeline	Q2	05/16/2017
Dual Pipelines (West and East)	Q3	08/01/2017
Dual Pipelines (West and East)	Q4	10/24/2017

Section F – Data Integration

74 [Feature Integration Database]

Enbridge has operated and maintained the feature integration database ("OneSource") for all pipelines in the Lakehead System since August 14, 2013. OneSource integrates information about corrosion, crack and geometry features from multiple ILIs of the pipelines and field measurement devices. OneSource enables pipeline integrity-management personnel to identify and track any changes to any feature detected by an ILI tool on successive investigations (i.e. Tool Runs) of the pipeline. In addition, OneSource enables personnel to identify and evaluate features detected by different types of ILI tools that may overlap or otherwise interact.

The OneSource view titled, "ILIReportFeatureDetailListing_V" meets the requirement for OneSource to integrate information about Crack features, Corrosion features, and Geometric features from multiple ILIs of the pipelines and field measurement devices.

The OneSource view titled, "NDEFeature_V" meets the requirement for OneSource to integrate additional information about Crack features, Corrosion features, and Geometric features collected through field measurements upon completion of the update required under Paragraph 77.

The OneSource views titled, "ILIReportFeatureDetailListing_V" and "FeatureMatchInventoryDetail_V" meet the requirement for OneSource to permit pipeline integrity-management personnel to identify and track any changes to any feature detected by an ILI tool on successive investigations (i.e. Tool Runs) of the pipeline.

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The OneSource views titled, “ILIReportFeatureDetailListing_V” and “FeatureMatchInventoryDetail_V” meet the requirement for OneSource to enable such personnel to identify and evaluate features detected by different types of ILI tools that may overlap or otherwise interact.

75 [Integrity Management Personnel Access to Feature Integration Database]

All Pipeline Integrity personnel have had access to OneSource access since at least September 9, 2016. The Pipeline Integrity “onboarding” process was revised on September 9, 2016, to grant OneSource access to all new personnel who began work after that date.

Enbridge integrity management personnel, including, but not limited to, personnel responsible for identifying Features Requiring Excavation, are able to access and view OneSource from their desktop computers and laptops. Personnel are able to search for and view, a schematic image of each joint of each Lakehead System pipeline. The step-by-step instruction how to search for and view the schematic image was provided to Independent Third Party (“ITP”) during an Enbridge - ITP Pipeline Integrity Working Session held in Enbridge Edmonton office on October 17, 2017. Each schematic image of a pipeline joint shows the following:

- Information about the construction of each pipeline joint, including:

  (1) the location of the long-seam,

  (2) the type of long-seam,

  (3) the location of the girth welds,

  (4) the type of Joint coating,

  (5) the diameter of the Joint,

  (6) the specified minimum yield strength (“SMYS”) of the Joint,

  (7) the pipe manufacturer,

  (8) the year of manufacture,

  (9) the wall-thickness of the Joint based upon the manufacturing specification, and

  (10) whether the joint is located within a High Consequence Area (“HCA”);
- Information about each ILI tool that Enbridge has used to investigate the pipeline joints, including: (1) the type of tool, (2) the tool supplier, and (3) the date of tool run;
- Information about each feature detected by each ILI tool, including: (1) the predicted length and location of each feature taking into account the uncertainty of the ILI tool, (2) the predicted depth of each feature taking into account the uncertainty of the ILI tool, (3) each feature’s type and classification, (4) the rupture pressure ratio and/or the Predicted Burst Pressure (“PBP”) of the feature, and (5) any comments made by ILI vendor(s) regarding such feature;
- Other pertinent details, including the average wall thickness of the pipeline joint as determined by ultra-sonic wall thickness measurement tools.

76 [Successive ILI Data Sets]

OneSource includes the ILI data sets from 1992 to present. This can be validated through the “OneSource ILI Run and Report Loading Status” report. ILI data sets are not deleted from OneSource.

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77 [Update of OneSource Database]

OneSource has included data sets from Non-Destructive Examination ("NDE") methodologies since 2014 and includes NDE information as far back as 2012. For all pipeline joints with NDE records, OneSource provides views of the following:

- NDEAssessment_V
- NDEComment_V
- NDEExcavation_V
- NDEFeature_V
- NDEGrind_V
- NDESleeve_V

(1)These views enable Enbridge's Integrity Management personnel responsible for identifying Features Requiring Excavation to overlay and compare information collected from ILI tools with the information collected by NDEs conducted in the field. These views contain information about all repairs to the Joint, including:

(a) the types of repairs,

(b) the location of sleeve-type repairs, and

(c) the depth and size of all grinding-related repairs.

(2) Additional information is also included about all unrepaired Crack features, Corrosion features and Geometric features, irrespective of whether such features were detected by ILI tools or not, including:

(a) the size and location of each feature,

(b) the depth of each feature,

(c) each feature's type and classification, and

(d) the field-determined rupture pressure ratio and/or Predicted Burst Pressure of the feature.

The updated OneSource is accessible by PI personnel and contains a hyperlink to other electronic databases that contain information collected during the NDE, including photographs of features and field notes taken by NDE personnel.

In this reporting period, Enbridge did not complete all field investigations related to any particular ILI Tool Run and did not trigger the 60 day deadline for NDE uploading into OneSource.

78 [Mandatory Use of Data Integration Database to Prepare Dig List]

78.a [OneSource ILI Updates]

All new ILI reports have been uploaded to OneSource within 29 days after Enbridge receives the Initial ILI report. The received and uploaded ILI reports are listed in the following table.

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Table 28: OneSource ILI Updates

Table 28: OneSource ILI Updates						
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Report Received Date**	**OneSource Load Date**
3712	L0003	CR-PW	USWM+	Corrosion	11/18/2017	11/20/2017
2215	L0005	BC-RW	GEMINI	Corrosion	11/22/2017	11/22/2017
2215	L0005	BC-RW	GEMINI	Geometry	10/23/2017	10/27/2017
3752	L0005	ENO-EMA	GEMINI	Geometry	5/12/2017	5/16/2017
3752	L0005	ENO-EMA	GEMINI	Corrosion	6/9/2017	6/15/2017
3753	L0005	ENO-EMA	UCc	Crack	5/25/2017	5/29/2017
2140	L0005	PE-IR	AFD	Corrosion	11/21/2017	11/22/2017
2150	L0005	PE-IR	CD+2	Crack	11/16/2017	11/16/2017
3662	L0005	PE-IR	USWM+	Corrosion	9/29/2017	10/4/2017
3754	L0005	WNO-WMA	GEMINI	Geometry	5/12/2017	5/16/2017
3754	L0005	WNO-WMA	GEMINI	Corrosion	6/9/2017	6/15/2017
3755	L0005	WNO-WMA	UCc	Crack	5/25/2017	5/29/2017

78.b [OneSource Interacting Features]

Enbridge completes ILI data review for the purpose of identifying any overlapping, or otherwise interacting, features that may qualify as Feature Requiring Excavation (in reference to Paragraph 35), within 180 days after the ILI tool is removed from the pipeline, as outlined in the Lakehead System Integrity Remediation Process Table 2, Step 7.0. The Features Requiring Excavation resulting from this review are summarized in Paragraph 58. The following table summarizes the reviews completed during this reporting period.

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Table 29: Interacting Feature Reviews

Table 29: Interacting Feature Reviews						
Tool Run ID	**Line**	**Segment**	**Tool**	**Report Type**	**Pull Date**	**Interacting Feature Review**
2215	L0005	BC-RW	GEMINI	Geometry	8/24/2017	10/30/2017
3752	L0005	ENO-EMA	GEMINI	Geometry	4/12/2017	5/23/2017
3752	L0005	ENO-EMA	GEMINI	Corrosion	4/12/2017	6/29/2017
3753	L0005	ENO-EMA	UCc	Crack	4/19/2017	6/5/2017
3662	L0005	PE-IR	USWM+	Corrosion	7/12/2017	10/27/2017
3754	L0005	WNO-WMA	GEMINI	Geometry	4/11/2017	5/20/2017
3754	L0005	WNO-WMA	GEMINI	Corrosion	4/11/2017	6/29/2017
3755	L0005	WNO-WMA	UCc	Crack	4/18/2017	6/5/2017

Section G – Leak Detection and Control Room Operations

(I) Assessment of Alternative Leak Detection Technologies

79-80 [Create and Submit ALD Report]

Enbridge submitted the Alternative Leak Detection (ALD) Report (ALD Report") within 120 days of the Effective Date on September 20, 2017. This report summarizes the feasibility and performance of leak detection technologies specified in Paragraph 79.a-c.

Enbridge has fully complied with Paragraph 80 by including the content specified in Paragraph 80.a-d for each ALD technology in the ALD Report. The ALD Report provides a listing of all laboratory and field evaluations conducted by Enbridge internally, as well as those conducted as part of Joint Industry Partnerships. Enbridge has also identified the ALD technology reports provided as part of the Lakehead plan, and provided a brief discussion on the advancements since these reports were published in 2012 and 2013. The evaluations and findings of each technology are summarized, and include an assessment of the feasibility of each system including underwater pipeline segments.

On November 30, 2017 the ITP provided its compliance verification report concluding that Enbridge was in compliance with Consent Decree requirements.

(II) Report on Feasibility of Installing External Leak Detection System at the Straits of Mackinac

81-83 [Create and Submit ALD Mackinac Report]

Enbridge submitted the Report on Feasibility of Installing an Alternative Leak Detection System at the Straits of Mackinac ("ALD Mackinac Report") within 180 days of the Effective Date on November 19, 2017. In accordance with Paragraph 81, that report assesses the feasibility of installing an alternative leak detection system at the Straits of Mackinac to supplement the existing leak detection systems: Material Balance System ("MBS"), rupture detection system and acoustic leak detection tool. The report also summarizes the feasibility and performance of leak detection technologies including, fiber optic cable (acoustic and temperature), vapor sensing tube, negative pressure wave system, and hydrocarbon sensing cable.

In accordance with Paragraph 82, Enbridge's ALD Mackinac Report evaluates each of the alternative leak detection technologies that are specified in Paragraph 81 for potential effectiveness in detecting leaks and ruptures, practicality of deployment at the Straits of Mackinac, practicality of long term operations and maintenance, as well as cost estimates for implementation, long term operations and maintenance expenses.

Further, in accordance with Paragraph 83, the ALD Mackinac Report compares the relative performance of each of the evaluated leak detection technologies with respect to each of the factors enumerated in Paragraph 82. The ALD Mackinac Report also includes an evaluation of the incremental benefits of each technology compared to the risks of implementation and an evaluation of the benefits and risks of reliance on the existing MBS Leak Detection System and those systems that Enbridge is required to implement under the Consent Decree.

(III) Requirements for New Lakehead Pipelines and Replacement Segments

84 [Applicability]

This Paragraph defines the requirements of Section III as applicable to New Lakehead Pipelines as well as replacement segments. Enbridge's demonstration of compliance is specified in the following Sections within this definition of new Lakehead pipelines and replacement segments.

Enbridge has not implemented any new replacement segments or new Lakehead pipelines during this reporting period as per the definitions of Subparagraphs 84.a and 84.b. The portion of Original US Line 3 that was replaced in 2017 in Wisconsin did not add any pump stations to the pipeline, and nor did it replace a section of the pipeline with a volume capacity greater than 45,000 cubic meters and thus does not qualify as a new replacement segment.

85 [Installation of Flowmeters]

As indicated above, Enbridge has not implemented any new replacement segments or new Lakehead pipelines during this reporting period; therefore, the requirements set forth under Paragraph 85 concerning the installation of flowmeters on new replacement segments and new Lakehead pipelines were not triggered during the reporting period. Nonetheless, the requirements specified under Paragraph 85 concerning the installation of flowmeters has been incorporated into Enbridge's mainline leak detection equipment standard, which requires that flowmeters be installed for all new Lakehead pipelines or replacement segments in accordance with Paragraph 85.

86 [Installation of Flowmeters on Pipelines that Utilize In-line Batch Interface Tools]

As indicated above, Enbridge has not implemented any new replacement segments or new Lakehead pipelines during this reporting period; therefore, the requirements set forth under Paragraph 86 concerning the installation of flowmeters on new replacement segments and new Lakehead pipelines that utilize in-line batch interface tools was not triggered during the reporting period. Nonetheless, the requirements specified under Paragraph 86 concerning the installation of flowmeters on pipelines that utilize in-line batch interface tools has been

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incorporated into Enbridge's mainline leak detection equipment standard, which requires that flowmeters be installed for all new Lakehead pipelines or replacement segments that utilize in-line batch interface tools in accordance with Paragraph 86.

87 [Installation of Other Instrumentation]

As indicated above, Enbridge has not implemented any new replacement segments or new Lakehead pipelines during this reporting period; therefore, the requirements set forth under Paragraph 87 concerning the installation of other instrumentation on new replacement segments and new Lakehead pipelines was not triggered during the reporting period. Nonetheless, the requirements specified under Paragraph 87 concerning the installation of other instrumentation has been incorporated into Enbridge's mainline leak detection equipment standard, which requires that the instrumentation specified in Paragraph 87 be installed for all new Lakehead pipelines or replacement segments.

88 [Establishment of MBS Segments]

Enbridge has not replaced MBS segments or implemented new Lakehead pipelines with meter to meter segment volumes greater than 45,000 cubic meters ("m^3"); therefore, the requirement under Paragraph 88 to establish MBS segments has not been triggered during the reporting period.

89 [Leak Detection Sensitivity Requirements]

Enbridge has fully complied with this Paragraph by designing the new US Line 3, once constructed following the receipt of necessary approvals and permits, to meet or exceed the defined MBS leak detection sensitivity targets. Industry standard methodology, API 1149, was used to estimate performance of each type of MBS alarm. The estimated steady state performance of the new US Line 3 MBS indicates adherence to each of the targets set forth in this Paragraph. For this reporting period, no other Lakehead projects have been designed or constructed; thus, the requirements specified in Paragraph 89.b for Other Lakehead Projects do not apply.

90 [Demonstration of Compliance with Leak Detection Sensitivity Design and Construction Requirements]

As indicated above, Enbridge has not constructed any new Lakehead pipelines or replacement segments during this reporting period. Thus, the requirements specified under Paragraph 90 concerning demonstrating compliance with leak detection sensitivity design and construction requirements have not been triggered. Once Enbridge's New US Line 3 is constructed and commissioned, Enbridge will demonstrate that the MBS Leak Detection System will comply with Paragraphs 90.a (Plan for testing the MBS Leak Detection System to detect leaks and ruptures) , 90.b [Test Plan details], 90.c [Proposed Plan and schedule if the testing fails] and 89.a [Leak Detection Sensitivity Requirements].

91 [Establishment and Optimization of Alarm Thresholds]

As indicated above, Enbridge has not designed or constructed any replacement segments or new Lakehead pipelines for this reporting period beyond the pre-construction design activities undertaken for New US Line 3. Enbridge will undertake the appropriate steps defined in this paragraph upon initial line fill of the New US Line 3 and any other new Lakehead pipelines or replacement segments.

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(IV) Leak Detection Requirements for Pipelines within the Lakehead System

92 [Operation of MBS Leak Detection System]

In accordance with Paragraph 92, Enbridge continues to operate the MBS Leak Detection System to perform computational modelling for each MBS segment of each Lakehead System Pipeline active during the reporting period. Enbridge maintains continuous and uninterrupted leak detection capability at all times on active lines, including during periods of start-up and shutdown except in events where instrumentation (i.e., flowmeter) failures occur that are out of Enbridge's control, or instrumentation is taken out of service for planned maintenance or repairs, or a flowmeter is bypassed due to a planned in-line tool run. This is achieved through a number of measures including architectural, logical, and procedural controls. Leak detection alarm thresholds for steady state operations as described in Paragraph 91.a has been consistently met since the Effective Date.

93 [Temporary Suspension of MBS Leak Detection Capabilities]

Enbridge has implemented procedural controls to track the three categories of temporary MBS suspension that are specified in Paragraph 93.a-c. Ultrasonic flowmeter maintenance and flowmeter outage workflows are implemented to track and coordinate planned (i.e., scheduled maintenance or repairs) and unplanned (i.e., unexpected failures beyond Enbridge's control) outages from start to finish; while, the in-line tool run procedure ensures tracking and reporting of station flowmeter bypasses when in-line tools are being run. Please refer to Appendix 3 for a list of occurrences of each type or reason for instrumentation outage.

94 [Overlapping MBS Segments]

Enbridge has implemented an overlapping volume balance algorithm to automatically establish and maintain leak detection capability in the event of a temporary loss or suspension of MBS leak detection capability within one or more MBS segments due to intermediate flow meter (i.e., flow meters not located in either injection or delivery) outage. The algorithm integrates the minimum number of MBS segments necessary to achieve and maintain temporary leak detection capability within all MBS segments impacted by the outage until the leak detection capability is restored in all MBS segments. Thus, the approach for overlapping segments has been designed in an optimal fashion integrating the minimum number of individual segments necessary to maintain leak detection capability.

95 [Alternative Leak Detection Requirements]

Paragraph 95 requires that in the event that Enbridge loses or suspends MBS leak detection capability in (a) the first MBS Segment at the beginning of a Lakehead System Pipeline due to an instrumentation outage at the upstream end of such segment or (b) the last MBS Segment at the end of a Lakehead System Pipeline due to an instrumentation outage at the downstream end of the MBS Segment, that Enbridge shall maintain leak detection capability by use of an alternative leak detection system that conforms with the API Publication 1130 Annex B. To comply with this requirement, Enbridge has implemented a procedural control for occurrences when Enbridge temporarily loses or suspends MBS leak detection capability. The procedural control requires Enbridge to continuously operate the alternate leak detection method until the flowmeter outage is resolved and the MBS Segment(s) are restored to operation. Enbridge has employed the procedural controls to maintain leak detection capability under the circumstances described in (a) and (b) above, and during the reporting period has successfully implemented the procedural controls where either (a) or (b) above occurred.

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96 [Reporting of MBS Outages]

Enbridge has implemented procedural controls and tools to track and manage planned and unplanned flow meter outage resulting in temporary loss or suspension of leak detection on the affected segment. Ultrasonic flow meter maintenance and flow meter outage workflows are implemented to track and coordinate planned (i.e., scheduled maintenance or repairs) and unplanned (i.e., unexpected failures beyond Enbridge's control) outages from start to finish; while, the in-line tool run procedure ensures tracking and reporting of station flowmeter bypasses when in-line tools are being run. These controls ensure that flow meter is put back into service within the consent decree MBS restoration timing requirements outlined in Paragraph 97. Should timing requirements not be met; appropriate escalation, tolling calculation, and reporting are followed. For this reporting period, timing requirements for restoration of MBS capability has been met. Thus, no reportable outages have occurred. Refer to Appendix 3 for a list of occurrences of each type or reason for instrumentation outage.

97 [Reporting Requirements]

In all events that Enbridge temporarily lost or suspended MBS leak detection capability, all instrumentation outages were put back into service within the prescribed time period for restoring MBS segment to operation in accordance with Paragraph 97, thereby causing any reporting requirement under Paragraph 96 to not be applicable. Refer to Appendix 3 for a table showing the number of occurrences by type where MBS was temporarily suspended, none of which were beyond the duration thresholds indicated in this paragraph.

98 [Tolling Requirements]

Enbridge has implemented a process to track and report station flowmeter bypasses when in-line tools are being run. In the event of unplanned shutdown during the in-line tool run, tolling period begins when the pipeline is shutdown, and ends when pipeline operation is resumed. There were no unscheduled shutdowns that occurred during the ILI tool bypass for this reporting period.

99 [Installation of New Equipment at Remotely-Controlled Valves]

Enbridge has not excavated a valve meeting the requirements of Paragraph 99 during the reporting period; thus, the requirements specified in Paragraph 99 to install new equipment at remotely-controlled valves was not triggered. Enbridge implemented the appropriate measures to ensure instrumentation addition requirements are complied with in the event that Enbridge excavates a remotely-controlled valve or converts a manual vale to a remotely-controlled valve. Specifically, the requirements for the installation of additional pressure and temperature instrumentation have been integrated into Enbridge operations and maintenance manuals. These manuals ensure the required instrumentation is installed when a remotely controlled valve is excavated, or when a manual valve is converted to remote control. Enbridge's management of change and commissioning processes ensure that any new instrumentation installed are then integrated in a manner as to provide continuous real time data to Supervisory Control and Data Acquisition ("SCADA") and MBS systems.

100 [Requirements for Valve Excavation]

The considerations for emergency excavations and "functionally identical" instrumentation have been incorporated into Enbridge operations and maintenance manuals and processes.

101 [Transient-State Sensitivity Analysis]

Enbridge performed the transient-state sensitivity analysis required under Paragraph 101 on November 19, 2017, which was within 180 days of Effective Date. A leak test methodology was selected and developed to enable Enbridge to execute testing during start up and shut down conditions of all pipelines in the Lakehead System. Results of the testing have allowed Enbridge to establish initial transient-state targets. As with all performance targets, Enbridge will continue to refine its methods for ensuring targets are appropriately set and measured, supporting the continuous improvement of the system.

102 [Rupture Detection System Alarm]

In accordance with Paragraph 102, Enbridge implemented and continuously operates the Rupture Detection System (RDS) on all Lakehead System lines active during the reporting period, during both steady-state and transient-state conditions. The RDS is complementary to and integrated with Enbridge's SCADA system and MBS Leak Detection System. The RDS is designed and operated in compliance with Enbridge's understanding of the requirements specified in Paragraph 102.a-b. This includes the technical implementation as well as the integration of the RDS into the appropriate operational procedure as per applicability of the Leak Detection Requirements for Control Room (Section V).

In accordance with Paragraph 102.c, Enbridge submitted its RDS Test Report to EPA and the ITP on August 18, 2017. The report documented the effectiveness of the RDS, and included an explanation of why the RDS would alarm in the event of a sudden pressure drop on both sides of a pump station. The report summarized comprehensive simulated testing of the RDS using real historical data has determined that the system is able to quickly and reliably detect all Enbridge historical rupture events. The ITP prepared a Review and Evaluation (October 23, 2017) of the Enbridge Report that concluded that the Enbridge's implementation of the RDS was state of the art and generally followed recommended industry practice. The ITP Review and Evaluation, however, also raised certain questions about the RDS Test Report. As of the time of this Semi-Annual Report, the parties continue to discuss and consider the questions raised by the Review and Evaluation. Enbridge has proposed conducting certain tests that will allow EPA and the ITP to concur in Enbridge's view that the company's combined RDS and MBS systems provide effective coverage for rupture detection and are in full compliance with the Decree. Consideration of this proposal is on-going as of the time of the Semi-Annual Report.

103 ["24-hour" Alarm]

Enbridge is preparing to implement the 24-hour volume balance alarm, which has been designed and will be operated as per the requirements of this Paragraph. This alarm will be fully implemented within 270 days of the Consent Decree Effective Date. Within one year of this new alarm, Enbridge will complete a study and then provide a report on the results of this study as required in the Subparagraphs for Paragraph 103.

(V) Leak Detection Requirements for Control Room

104 [Applicability]

Alarms generated from the MBS leak detection system and by the Rupture Detection System have both been incorporated into the requirements of Section V "Leak Detection Requirements for Control Room," which requires that Enbridge is to maintain continuous and uninterrupted leak detection capability at all times, including during periods of Startup and Shutdown.

105 [Alarm Response Team]

Enbridge implemented an Alarm Response Team ("ART") within 180 days of the Effective Date. The ART is composed of the Control Room Operator ("CRO"), the Leak Detection Analyst ("LDA"), and the Senior Technical Advisor ("STA"), and responds to all leak alarms.

106 [Remote Notification of Alarm Response Team]

Enbridge implemented a remote notification system within 180 days after the Effective Date. In the event that a leak alarm is not electronically acknowledged within two minutes after the onset of an alarm, ART members receive an automated remote telephone call with the alarms details (including the type of alarm, the time of its occurrence and the MBS segment that precipitated the alarm).

107 [Audible and Visual Alarms]

Enbridge has implemented both audible and visual alarms in accordance with Paragraph 107 within 180 days after the Effective Date. MBS and RDS alarms are automatically annunciated in an alarm window for all members of the ART. Alarms have a visual pulse accompanied by a strong beeping sound, indicating that an alarm requires attention. The pulse continues and beeping repeats every five seconds until the alarm is acknowledged by the ART member. ART members are trained to ensure that the alarm window remains open at all times. Unassessed alarms remain visible until assessments from ART members are complete upon execution of the alarm clearance procedures. If the assessment is not complete within the 10-minute timeframe, an audible and visual alert is generated to notify Alarm Recipients of a required pipeline shutdown.

108 [Alarm Clearance Procedures]

Enbridge has implemented the following Alarm Clearance procedures within 180 days of the Effective Date. Alarm Clearance procedures have been employed and adhered to as described.

108.a [Alarm Clearance Requirements]

In order to clear an alarm, the appropriate ART members are required to execute the leak detection alarm management procedure. Under the required procedure, only three results are possible: (1) the appropriate ART member accounts for any cumulative imbalances (in which case the team member may invalidate the alarm); (2) all of the ART members independently rule out the possibility of a leak; or (3) the pipeline is shutdown.

108.b [Alarm Clearing Restrictions]

Enbridge procedures dictate that all alarms are analyzed regardless of alarms that are cleared or the steps taken to resolve the alarm. Enbridge's procedural controls and electronic recording process prohibit the resolution of alarms based on adjustments to alarm system inputs, directly or otherwise.

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108.c [Confirmation of Leak Detection System Functioning]

Enbridge has implemented procedures for LDA alarm analysis. These procedures involve the evaluation of the leak detection systems to ensure proper functionality of the leak detection system and the validity of the alarm. The LDA follows procedures to determine if leak alarms are caused by data errors input into the leak detection systems, system malfunctions or other factors that could lead to an invalid leak alarm.

108.d [Independent Alarm Investigation]

Appropriate ART members employ procedures and conduct independent analysis of leak alarms. The CRO, in conjunction with the STA, is required to complete an investigation of the alarm, independent from the LD Analyst. If a final decision is made to clear the Alarm before the 10 minutes have expired, it is made by the CRO, with the concurrence of the STA. The analysis is conducted in-conjunction with the Ten minute rule to ensure the final decision to invalidate the alarm is made within ten minutes, or the pipeline is shutdown.

108.e [ART Procedures for Column Separation]

Appropriate ART members are required to employ Enbridge column separation procedures when determining the cause of a MBS Alarm. Specific to this Subsection, procedures mandate that a determination that an Alarm was caused by Column Separation is not be a permissible basis for clearing an Alarm unless the ART follows the procedures set out in Paragraph 109.b and 109.c.

108.f [Electronic Records of Alarm Response]

Enbridge has implemented an electronic record keeping system for managing ART response information. All ART member responses are recorded and are documented as required by this Paragraph (see Appendix 1: Lakehead Leak Alarm Report). Each record includes details of the event including the type of alarm, reasons for clearing the alarm, and the procedures executed by members of the ART. Review of leak alarms are required by all incoming ART members during a shift change (i.e. subsequent shift). Records are retained for a minimum of 5 years.

109 [Unscheduled Shutdown in Response to an Alarm]

Within 50 days after the Effective Date, Enbridge employed all of the procedures specified in Paragraph 109.a-d, as explained in more detail in the sections that follow.

109.a [Ten-Minute Rule]

Enbridge has implemented operating procedures that require the CRO to shut down and sectionalize the pipeline immediately, without further consultation or notification, if the ART is unable to rule out the possibility of a leak or rupture within 10 minutes of the start of an Alarm.

109.b [Column Separation – Running Pipeline]

Enbridge has implemented column separation procedures that require the CRO to shut down and sectionalize a running pipeline if within 10 minutes from the start of the Alarm the column separation continues or the appropriate ART members have not: (1) determined the cause of the column separation, (2) accounted for any cumulative imbalances that triggered the Alarm, and (3) ruled out a possibility of a leak or rupture. The procedures are not applicable where the Alarm is caused by column separation that occurs during or after the shutdown of the pipeline, consistent with Paragraph 109.b

109.c [Column Separation –Pipeline Shutdown]

Enbridge implemented column separation procedures in accordance with Paragraph 109.c. Specifically, in addition to what was implemented in Subparagraph 109.a above, Enbridge also has implemented Alarm Clearance procedures in accordance with Paragraph 108, which requires that a column separation fill time be calculated with review and approval from management, as indicated in the management approval table in this Paragraph. Upon restart of the pipeline where the column fill time is exceeded, the CRO is immediately required to shut down and sectionalize the line. Upon shutdown, steps to investigate and verify the condition of the pipeline will be taken as required in this Paragraph.

109.d [Confirmed Leak Rule]

Enbridge implemented confirmed leak procedures, which require the CRO to immediately shut down and sectionalize the pipeline in the event that the ART determines that an Alarm is a confirmed leak or rupture, as defined under Paragraph 109.d(1)to(4). Unless a leak is ruled out, the CRO will shut down within 10 minutes if leak conditions are observed upstream or downstream at a given location from SCADA data.

109.e [Shutdown and Restart Record]

Following the shutdown of a pipeline, Enbridge executes a procedural control and electronic recording measure process that: identifies the root cause of a leak alarm, verifies that applicable emergency procedures have been completed and electronically validated by the appropriate accountable parties, and generates a record of how the cause of the Alarm was determined and/or how the integrity of the line was verified, including the critical information that was considered in this decision-making process. In accordance with Paragraph 109.e, Enbridge will not resume or restart pipeline operations until the procedural controls are executed and the recording of electronic information is validated by appropriate accountable parties. Electronic records of compliance with this Paragraph are available as of December 31, 2016. Enbridge is compliant with this Paragraph, and has not observed any instances where pipeline operations were resumed without meeting the requirements of this Paragraph.

110 [Certification of Compliance with 10-Minute Rule and other Requirements of this Subsection]

110.a [Weekly List of Alarms]

In accordance with Subparagraph 110.a, Enbridge prepares an electronic weekly list of alarms (“WLOA”) as part of the Lakehead Leak Alarm Report per Appendix 1. WLOA includes the pipeline, the type of Alarm, date of the Alarm, the time at which the Alarm began, and the time when the Alarm was cleared.

110.b [Record of Alarms]

Enbridge complies with this requirement by preparing an electronic record of alarms (“ROA”) when an unscheduled shutdown occurs. The ROA includes critical facts relating to the Alarm, such as the positions of the Alarm Recipients (i.e., CRO, STA, LDA), the time that the Alarm was received, the actions of the Alarm Response Team, when shutdown commenced, when shutdown was completed, the root cause, the type of Alarm, the procedures executed to determine the cause of the alarm, the justification for resumption of pumping operations, and the time that pumping operations resumed.

110.c [Alarm Submittal to EPA]

Enbridge complies with this requirement by including the WLOAs and ROAs occurring during the reporting period for all pipelines in the Lakehead System as part of the Lakehead Alarm Report, enclosed hereto as Appendix 1. The Lakehead Leak Alarm Report also includes the summary of Alarms ("SOA") noting the pipeline, the total number of alarms and the alarms that did not comply with Enbridge's 10-Minute Rule. During this time, Enbridge has complied with the 10-Minute Rule and other requirements in Subsection VII.G. (V) when responding to leak detection system alarms. There are no non-compliances to report and no corrective actions to be taken.

110.d [Certification of Reporting Period]

To certify compliance for the reporting period of 180 days after the Effective Date, the Vice-President, Pipeline Control for Enbridge has signed the Lakehead Leak Alarm Reports. This includes the information contained in the SOA, WLOA and ROA, which warrants that the information contained therein is true and accurate and that Enbridge has complied with the 10-Minute Rule and other requirements of this subsection VII.G.(V), except for those non-compliances specifically listed in the SOA.

111 [Unscheduled Shutdown Procedures in Response to Other Events]

Enbridge has implemented procedural controls that ensure that all emergency phone calls received by the Control Center concerning a potential leak or rupture from a source other than an Alarm are investigated within 10 minutes. In the event that the investigation uncovers evidence consistent with a leak or rupture by a Lakehead System pipeline, the CRO for the pipeline is required to immediately and without further consultation or notification to shut down and sectionalize the pipeline. Further, in addition to the requirements of the Consent Decree, Enbridge procedures independently require that while the investigation is required to be conducted as expeditiously as possible, if the investigation is not completed in 10 minutes or if a potential leak is identified, the CRO will commence an emergency shutdown and sectionalize the affected pipeline. Enbridge is aware of one incident during the reporting period where Enbridge procedures were not implemented correctly in the context of a telephone report of a possible leak. This incident, however, did not result in violation of the Consent Decree. Moreover, further investigation ultimately revealed that no leak or emergency situation had occurred.

112 [Reporting of Events from Paragraph 111]

Information related to all incidents during the reporting period where Enbridge received information concerning a potential leak or rupture, including the information provided with each such notice, the start and end times of each respective investigation, and the conclusion and findings of each investigation, is provided in Appendix 2 to this Report: Lakehead System Pipeline Incident Reporting.

Section H – Spill Response and Preparedness

113 [Immediate Action to Confirmed Pipeline Leak or Rupture]

Enbridge has not had any confirmed pipeline leaks or ruptures on the Lakehead System within the reporting period of more than one barrel or of any harmful quantity that reached the waters of the United States or adjoining

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shorelines other than as reported in Enbridge's response to Paragraph 146. During the reporting period, three releases occurred on the Lakehead System that triggered Pipeline and Hazardous Materials Safety Administration ("PHMSA") reporting requirements. The releases were reported to PHMSA in accordance with 49 C.F.R. 195.50(e) due to the fact that the estimated property damage, including the cost of clean-up and recovery, value of lost product, and/or damage to the property of the operator and/or others exceeded $50,000. With respect to each release, Enbridge proceeded without delay to dispatch trained personnel to the location of the rupture or leak and took action to prevent any migration of oil into waters of the United States, including shutting down the affected line. Additional details regarding the release(s) from Lakehead System Pipelines that occurred in 2017 are provided in response to Paragraph 146.

114 [Required Actions]

All required actions are explained in Paragraphs 115 to 119 below.

115 [Agreed Exercises]

In accordance with Paragraph 115, Enbridge conducted functional activities for the Cass Lake Agreed Exercise in 2017 and will complete the field/equipment deployment portion of that Agreed Exercise in 2018. Enbridge has also taken measures to plan the Des Plaines Agreed Exercise, which will occur in 2018. Additional information regarding each of these Agreed Exercises is provided below.

<u>Cass Lake Agreed Exercise</u>

Enbridge fulfilled the requirements of Subparagraph 115.b(1), as modified by the parties, by conducting the functional/command post portion of the Cass Lake Agreed Exercise on September 26 and 27, 2017. Enbridge and the United States mutually agreed to a non-material second modification of the Consent Decree to modify the timing for the completion of activities associated with the Cass Lake Agreed Exercise. Specifically, the parties agreed through a stipulation filed with the court on July 14, 2017 (Doc. No. 16) that the Cass Lake Agreed Exercise is to be completed by Enbridge in two parts. In 2017, Enbridge was required to conduct a functional exercise with mobilization and deployment of Enbridge's local Incident Management Team and a functioning command post with an Incident Command System ("ICS") and in 2018, Enbridge is required to conduct a field exercise with equipment deployment at or near Cass Lake in accordance with the requirements of Subparagraph 115.a

Planning for the Cass Lake Agreed Exercise was initiated in November 2016. In accordance with Subparagraph 115.d and e(2), Enbridge sent 33 planning team invitations to tribal, local, state and federal representatives (including EPA, PHMSA, area committee and Sub-Area committee representatives) to attend planning meetings for the Cass Lake Agreed Exercise. In accordance with Subparagraph 115.e(1), the first of the planning meets was conducted on November 29, 2016, more than 10 months before the Cass Lake Agreed Exercise. Enbridge conducted a total of five planning meetings for the exercise, thereby exceeding the three meeting minimum requirement under Subparagraph 115.e(1). In accordance with Subparagraph 115.e(3), Enbridge coordinated with the planning participants during the initial meeting to develop the objectives, scenario, and participant list for the Cass Lake Agreed Exercise. The specific dates of the planning meetings are as follows:

- Concept and Objectives on November 8, 2016;
- Initial Planning Meeting on November 29, 2016;
- Mid-Planning Meeting on February 16, 2017
- Master Scenario Events List ("MSEL") Meeting on May 24, 2017;
- Final Planning Meeting on August 24, 2017

Based on input provided by the initial planning meeting attendees, Enbridge prepared a draft exercise plan for the Cass Lake Agreed Exercise, which included the scope, objectives, scenario, and participant list for the exercise. In accordance with Subparagraph 115.e(4), that Draft Agreed Exercise Plan was submitted to EPA for review and approval on December 26, 2016, nine months before the scheduled Agreed Exercise. On January 5, 2017, EPA approved the Draft Agreed Exercise Plan subject to Enbridge revising the Plan to address any additional comments. In accordance with Subparagraph 115.f, the Final Agreed Exercise Plan was submitted to the EPA on July 27, 2017.

The Cass Lake Agreed Exercise was conducted in accordance with the Final Agreed Exercise Plan on September 27, 2017. In accordance with the second modification of the Consent Decree, the Cass Lake Exercise consisted of a functional exercise with mobilization and deployment of Enbridge's regional Incident Management Team. The Exercise also included implementation of the Incident Command System.

In accordance with Subparagraph 115.h, Enbridge organized and conducted a meeting on September 28, 2017 to review the functional/command portion of the Cass Lake Agreed Exercise for the purpose of identifying "lessons learned," and to make recommendations to improve future Agreed Exercises and response actions. As required under Subparagraph 115.h, Enbridge invited each planning participant to partake in that after-action review.

In accordance with Subparagraph 115.i, Enbridge submitted the Draft Cass Lake Agreed Exercise After Action Report to EPA on November 23, 2017. That After Action Report set forth Enbridge's findings and conclusions regarding the functional/command portion of the Cass Lake Agreed Exercise. Enbridge is currently revising the Cass Lake Agreed Exercise After Action Report to include comments provided by the EPA on January 4, 2018. Enbridge plans to submit the revision of the report by end of January 2018.

Des Plaines Agreed Exercise

In accordance with Subparagraph 115.b(2), Enbridge has scheduled the Des Plaines Agreed Exercise to occur on September 27, 2018. Planning for the Des Plaines Agreed Exercise was initiated in May 2017. In November 2017, and in accordance with Subparagraph 115.d and e(2), Enbridge sent 37 planning team invitations to local, state and federal representatives (including EPA, PHMSA, Area committee and Sub-Area committee representatives, but not to Tribes as the EPA indicated there are no applicable Tribes in this area) to attend planning meetings for the Des Plaines Agreed Exercise. In accordance with Subparagraph 115.e(1), the first of the planning meets was conducted on November 21, 2017, more than 10 months before the Des Plaines Agreed Exercise. In accordance with Subparagraph 115.e(1), Enbridge has conducted two planning meetings for the exercise. In accordance with Subparagraph 115.e(3), Enbridge coordinated with the planning participants during the initial meeting to develop the objectives, scenario, and participant list for the Des Plaines Agreed Exercise. The specific dates of the planning meetings are as follows:

- Concept and Objectives on May 16, 2017;
- Initial Planning Meeting on November 21, 2017.

Based on input provided by the initial planning meeting attendees, Enbridge prepared a draft exercise plan for the Des Plaines Agreed Exercise, which included the scope, objectives, scenario, and participant list for the exercise. In accordance with Paragraph 115.e(4), that Draft Agreed Exercise Plan was submitted to EPA for review and approval on December 21, 2017, nine months before the scheduled Agreed Exercise.

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116 [Field Exercises, Table Top Exercises, and Community Outreach]

116.a [Annual Field Exercise and Table Top Exercise Requirements]

In accordance with Subparagraph 116.a, Enbridge conducted the following Field Exercises in 2017:

- Bay City, MI on May 23;
- Nile, MI on May 30;
- Saint Hillarie, MN on June 7;
- Wilmington, IL on June 7;
- Ottawa, IL on September 13.

116.b [Field Exercise Requirements]

In accordance with Subparagraph 116.b, each of the Field Exercises identified above consisted of training exercises conducted in the field to test and practice specific oil spill emergency response tactics used in the initial hours of an oil spill of at least 1,000 gallons into water. Each Field Exercise included: a deployment of select equipment and personnel to water; a review of locations downstream of a spill where containment and recovery operations can occur; and implementation of one or more containment and collection measures from the Enbridge's "Inland Spill Response Guide" at locations downstream of the potential spill entry point. Further, in accordance with Subparagraph 115.b an after action review and discussion was held after each of the Field Exercises.

In accordance with Subparagraph 116.a, Enbridge conducted the following Table Top Exercises in 2017:

- Bartlett, IL on July 25;
- Cary, IL on July 26;
- Cavalier, ND on August 30;
- Superior, WI on September 26;
- Serena, IL on October 10;
- Marseilles, IL on October 11;
- Joliet, IL on October 12;
- Crete, IL on November 1;
- Wisconsin Rapids, WI on November 8.

116.c [Table-Top Exercise Requirements]

In accordance with Subparagraph 116.c, the Table Top Exercises identified above were conducted to test and practice non-field oil spill emergency response processes and procedures. The exercises included: a minimum spill scenario of at least 1,000 gallons from a Lakehead System pipeline located in close proximity to water; notifications of the spill to all the government entities, including tribal authorities, that are identified in the Enbridge Integrated Contingency Plan ("ICP"); both near and long term response actions to address the spill; anticipated response times for Enbridge equipment and personnel; the risks that the spill scenario could pose to public health and the environment; potential resources at risk; and protective measures for the local community, including evacuation procedures, as identified in the Enbridge ICPs.

116.d [Field and Table-Top Invitees]

In accordance with Subparagraph 116.d, prior to conducting the Field and Table Top Exercises identified above, Enbridge sent out invitations to community, state and local first responders listed in Appendix C of the Consent

Decree, as well as first responders located within 5 miles of the exercise scenario. The invitations provided recipients with notice of the exercise at least four weeks prior to the date in which the exercise was to be conducted. The invitation also indicated that Enbridge would provide meals to persons who attended each exercise, and that the training would be provided at no cost to the invitees, excluding travel costs. Further, in accordance with Subparagraph 116.d, Enbridge provided EPA with notice of all the Field and Table Top exercises to be conducted in 2017 on March 16, 2017.

116.e [Community Outreach Sessions]

In accordance with Subparagraph 116.e, Enbridge conducted Community Outreach sessions in 2017 at the following locations:

- Marshall, MI on April 19;
- Niles, MI on April 20;
- Stockbridge, MI on May 9;
- Clarkston, MI on May 10;
- Port Huron, MI on May 11;
- Elgin, IL on July 25;
- DeKalb, IL on July 26;
- Bolingbrook, IL on July 27;
- LaPorte, IN on September 12;
- Hobart, IN on September 13;
- Ladysmith, WI on October 11;
- Nekoosa, WI on October 12;
- Wisconsin Dells, WI on November 2;
- Jefferson City, WI on November 2.

For these sessions over 192,250 invitations were sent to landowners, elected officials, media, the general public, and community leaders. Each session was conducted in an open house format with manned booths that provided attendees with valuable information on pipeline operations, product information, safety, preventative maintenance, integrity, emergency response, public awareness, damage prevention / right-of-way, and Enbridge's involvement in local communities. The information conveyed at the Community Outreach sessions also included: potential hazards of different oils transported by the Lakehead System; the location of Enbridge pipelines in proximity to the communities where the sessions were conducted; how Enbridge's pipelines are marked; how the community should respond in the event of a spill; how the community can obtain information in the event of a spill from Enbridge and government agencies; and how the community can report spills to Enbridge, EPA, and the National Response Center.

117 [Control Point Plans]

In accordance with Subparagraph 117.a, Enbridge is preparing to have updated and maintained within three years after the Effective Date information for the Control Point locations set forth in Appendix D in the Consent Decree that identify containment and recovery points, as well as staging locations and other response-related locations, along the waters that could be impacted by a spill from a pipeline in the Lakehead System. The control point information will include the information specified in Subparagraph 117.b, and will be organized in a format that is consistent with the example control point information that is provided as Appendix E to the Consent Decree.

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In 2017, Enbridge conducted an assessment of the control points listed in Appendix 4. That assessment identified a number of duplicate control points contained in Appendix D. Enbridge now is working to remove/consolidate the duplicated control points, a measure agreed to by the EPA.

In addition, Enbridge's assessment of Appendix D revealed the existence of 161 existing control points along the Lakehead System that are not included in Appendix D. In accordance with Subparagraph 117.f, Enbridge thus notified EPA on December 20, 2017 that it plans to amend the control point locations identified in Appendix D to remove the duplicate control points and to include the control points that were previously excluded. Appendix 4 of this Semi-Annual Report provides a list of the control points with the proposed changes.

Further, in 2018, field work will be conducted to help improve the control points along the Lakehead System. Enbridge expects that field work will result in the addition of approximately 140 new control points. Such additions will be addressed in future semi-annual reports, and notifications to EPA submitted in accordance with Subparagraph 117.f.

In accordance with Subparagraph 117.c, Enbridge is in the process of revising the control point information for the Straits of Mackinac, and intends to provide that updated information to EPA no later than one year after the Effective Date.

In accordance with Subparagraph 117.d, control points for the Cass Lake Agreed Exercise were submitted to EPA on July 27, 2017, and control points for the Des Plaines Agreed Exercise were submitted to EPA on May 30, 2017. The control point information submitted to date by Enbridge to EPA was provided in the electronic formats specified in Subparagraph 117.e.

Once the control point information is fully updated, Enbridge will provide such information, upon request, to USCG, PHMSA, Sub-Area Committees, and state and local responders, and tribal authorities, in accordance with Subparagraph 117.g.

118 [Response Time]

In accordance with Paragraph 118, Enbridge will conduct a review of Enbridge and OSRO personnel and equipment available to respond to an oil spill from the Lakehead System within three years after the Effective Date.

119 [Coordination with Governmental Planners]

Coordination is described in Sections 119a. to 119.k below.

119.a [Planning Meeting Participation]

In accordance with Subparagraph 119.a, Enbridge attended, in person, the following Area and Sub-Area Committee planning meetings held in 2017:

- Duluth/ Houghton Sub-Area Committee Meetings on April 11, April 13, July 13, October 17 and October 19;
- Sault Ste. Marie Sub-Area Committee Meetings on January 3, and June 13.

To date Enbridge has not received an invitation to become an active member of the listed Area or Sub-Area Committees.

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119.b [Sub-Area Activities Participation]

Enbridge's participation is provided in 119.b.

119.b (1) [Field Exercise Participation]

Since the Effective Date, Enbridge has not received an invitation from a Sub-Area Committee to attend a Field Exercise. Thus, Enbridge had no obligation under Subparagraph 119.b(1) to attend a Sub-Area Committee Field Exercise in 2017.

119.b (2) [Other Training Events Participation]

In accordance with Subparagraph 119.b(2), Enbridge attended the following training events in 2017:

- Sault Ste. Marie Sub-Area Committee Table Top Exercise on September 14;
- Chicago Sub-Area Committee Table Top Exercise on November 1.

119.c [Response Requirements to Sub-Area or Area Committee Recommendations]

No Sub-Area Committee or Area Committee for the Lakehead System has made written recommendations to Enbridge regarding its emergency preparedness plans and implementation. Thus, Enbridge had no obligation under Subparagraph 119.c to respond and/or revise its emergency preparedness plans or implementation in 2017.

119.d [Response Planning Meetings Requirements]

Enbridge did not receive a request in 2017 to meet and discuss response planning strategies to ensure consistency with the Area Plan. Thus, Enbridge had no obligation under Subparagraph 119.d to schedule and attend a meeting in 2017 with EPA, PHMSA, USCG, tribal representatives, and/or state or local authorities.

119.e - f [Plans]

In accordance with Subparagraph 119.e and f, electronic copies of Enbridge's Integrated Contingency Plans for the Lakehead System and the Straits of Mackinac Tactical Response Plan were provided to EPA and the Area and Sub-Area Committees identified on Subparagraph 119.a on July 21, 2017. All plans were provided electronically in pdf format, as required by Subparagraph 119.k.

119.g [Prepositioned Emergency Response Locations and Equipment]

In accordance with Subparagraph 119.g, electronic copies of Enbridge's Lakehead System response time maps and equipment locations were sent to EPA and the Area and Sub-Area Committees specified in Subparagraph 119.a on June 21, 2017. The equipment lists were electronically provided in pdf format and maps were electronically provided in shapefiles as required by Subparagraph 119.k.

119.h [Emergency Response Equipment]

Enbridge continues to maintain, in good working order, its prepositioned emergency response equipment and materials. Annually, Enbridge will submit modifications in prepositioned emergency response equipment or material to EPA and the listed Area and Sub-Area Committees.

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119.i [Inland Spill Response Guide on Website]

In accordance with Subparagraph 119.i, the "Inland Spill Response Guide" is available on Enbridge's website. (http://www.enbridge.com/projects-and-infrastructure/public-awareness/emergency-response-action-plans), and has been available since May 23, 2017.

119.j [Inland Spill Response Guide to EPA]

EPA has not requested a copy of the "Inland Spill Response Guide." Enbridge will provide electronically if requested by the EPA.

119.k [Electronic Submittal of Documents]

Enbridge has provided electronic copies of documents as described previously in section 119.

120 [Incident Command System Training]

ICS Training is described in sections 120.a to 120.c below.

120.a [Incident Command System Training Requirements]

In accordance with Subparagraph 120.a, Enbridge has ensured that prior to being assigned the following roles the corresponding training has been completed. This includes:

- Incident Commanders, Deputy Incident Commanders or Alternative Incident Commanders of any Regional Incident Management Team in any Lakehead ICP: ICS 100B - 400 and position- specific training;
- All other personnel listed as members of any Regional Incident Management Team in any Lakehead ICP: ICS 100B - 300 and position-specific training;
- Regional Emergency Response Coordinators: ICS 100B - 400 training;
- All emergency management department personnel: ICS 100B – 300 training within 90 days of being assigned;
- Any person designated as Vice President of U.S. Operations, or in an equivalent capacity: ICS 402 training;
- Any other manager or executive who give direction to field personnel, or is responsible for making funding, personnel, or resource decisions during a spill response (if ICS 100B – 400 has not been taken): ICS 402 training.

Changes to the IMT lists due to retirements, change of employment, etc. will result in additional training being conducted.

120.b [ICS Training and Incident Management Team Personnel]

In accordance with Subparagraph 120.b, Enbridge has trained at least one employee for each Incident Management Team position.

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120.c [Training Requirements and Electronic Certification Documents]

In accordance with Subparagraph 120.c, Enbridge maintains electronic certification documents that confirm personnel training as described in Subparagraph 120.a.

Section I – New Remotely Controlled Valves

121-122. [Installation of 14 Remotely Controlled Valves]

The Consent Decree requires that Enbridge install 14 valves over the life of the Decree. During 2017, Enbridge installed and commissioned the first four of the 14 valves, as described below.

Table 30: Planned Valve Installation Program Overview

Table 30: Planned Valve Installation Program Overview		
Year	**Quantity and Line Number**	**Milepost Number**
2017	4 sites, Line 5	1473, 1487, 1601, 1715
2018	4 sites, Line 5	1416, 1518, 1429, 1621
2019	2 sites, Line 6A 2 sites, Line 14	427, 459 412, 430
2020	2 sites, Line 6A	80, 196

The valves listed in the table above are located between the mileposts stipulated in Consent Decree Paragraph 122. All permit applications related to the 2017 valve installations were submitted to respective government agencies on time, and all permits were received on time.

In the 2017 reporting period, four valves were successfully installed on Line 5 on August 16, 2017 (Mileposts 1473 and 1487) and October 18, 2017 (Mileposts 1601 and 1715). The valves at mileposts 1473 and 1487 were commissioned on October 18, 2017; the valves at mileposts 1601 and 1715 were commissioned on December 11, 2017. The ITP was in the field on August 16 to witness the installation of the first two valves, and on October 18 to witness their commissioning.

123. [Enbridge Computer Modeling for Valve Locations]

To select the exact locations where valves will be installed, consistent with Paragraph 122, Enbridge conducted an analysis using its Intelligent Valve Placement ("IVP") methodology. The objective and guiding principle of the IVP methodology is to reduce the maximum potential release volume as much as reasonably practicable in the unlikely event of a pipeline release. To achieve this, the entire pipeline route is modeled, taking into account the topography of the right-of-way, the elevation profile of the pipeline, the throughput and operating pressure of the pipeline, and the location of watercourses. The IVP methodology also considers potential impacts of a pipeline release on sensitive features, or High Consequence Areas ("HCAs"), including highly populated areas, other populated areas, reservoirs holding water intended for human consumption, commercially navigable waterways, and environmentally sensitive areas. HCAs include those that are directly affected by the pipeline and those that are affected by a transport mechanism such as overland or terrain transport, spray, and water transport.

The IVP methodology uses a risk-based approach for optimizing valve placement to reduce potential damage from accidental discharge to populated areas, water crossings, HCAs, and areas of high volume out. The process examines the pipeline segment by segment on an iterative basis until the lowest, reasonably practicable release volume between valves is achieved along the pipeline. The goal of the IVP methodology is to protect the public and the environment in the entire area, rather than focusing only on specific watercourse crossings.

The IVP also considers the impact to environmental resources caused by construction activities in relation to valve installation. Once location(s) are selected using the IVP risk-based approach, Enbridge will conduct a field verification of potential valve locations. Field verification will evaluate the impact of construction to the environment, including the following factors: valve site access, constructability, and power and land availability. Final valve locations may be altered due to constructability issues and environmental impacts identified during field verification.

The information above was summarized in a report titled “DOJ Commitment Valves, Valve Analysis”, V3.0, dated January 18, 2017. The ITP was provided the report in response to “Information Requests” received from the ITP (under number I011). On July 25, 2017, an in-person meeting was held with select members of the ITP, and Enbridge representatives from Pipeline Compliance, Engineering, and Risk Management, to review in detail the IVP methodology and answer the ITP’s questions pertaining to method, risk, and rationale.

124. [Valve Design and Closure]

Prior to requisition of the valves for installation in 2017, Enbridge SMEs examined each step of the valve closure process including initiating of command, communication of command to the remote facility, energizing of the actuator, and mechanical process to fully close and seal the valve. Considerations were made for each of these steps leading up to the start of mechanical closure, and subtracted from the total allowable command-to-sealed requirement, and the valves were specified on the Purchase Order to the manufacturer to close within that remaining time. Enbridge also specified on the Inspection and Test Plan that a valve closure timing test will be completed on at least one valve of each size to verify actuator open and close time. Enbridge inspectors were present to witness the shop closure timing test and confirmed that the valves closed within the specified time, prior to shipment and delivery. During wet commissioning of all four 2017 valves, timing tests were conducted, and all four valves fully closed and sealed within three minutes of the operator engaging the valve-closure mechanism, complying with the Consent Decree requirement.

Section J – Independent Third Party Consent Decree Compliance Verification

125. [Retention of Independent Third Party (“ITP”)]

Enbridge retained Independent Third Party OB Harris on January 11, 2017 to conduct compliance verification activities set forth in Section VII [Injunctive Measures] except for subsection VII.H [Spill Response & Preparedness].

126. [ITP Access to Enbridge Lakehead System]

Enbridge provided the ITP with full access to all facilities that are part of Enbridge’s Lakehead System including any personnel, documents and databases to allow them to fully perform all activities and services required by the requirements of the Consent Decree. The ITP was brought on board in Q1 2017, well before the Effective Date.

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127. [List of Candidates for ITP]

On October 5, 2016, in accordance with Paragraph 127 of the Consent Decree, Enbridge nominated two entities, O.B. Harris and Michael Baker International, to serve as the ITP. As indicated in Enbridge's October 5, 2016 submission to the United States, after careful vetting Enbridge was unable to identify a third qualified candidate to serve as the ITP given that other firms were disqualified due to current or prior business relationships with Enbridge. Enbridge also certified that each nominated candidate met the conditions set forth in Subparagraphs 127.a-e, and Enbridge provided the candidates' resumes, biographies and other relevant information regarding the Enbridge relationship to the State.

In accordance with Paragraph 127, the ITP OB Harris and the subject matter experts he has retained ("ITP personnel"), demonstrated experience in pipeline integrity and operations to provide the required services, have not conducted any advisory services such as research, engineering, consulting for Enbridge in the last three years and have not been in involved in the development of Enbridge's control room, leak detection or pipeline integrity procedures.

Enbridge has also committed that it will not hire any ITP personnel for commercial, business or voluntary services, nor provide future employment to any of the ITP personnel who conducted or otherwise participated in verification services under the Consent Decree for a period of at least three years after the termination of the Consent Decree.

128. [Enbridge Certification of Candidates]

Enbridge was not required to identify an alternative candidate and specify all of the requirements outlined in Paragraph 128 due to the fact that all candidates submitted to the United States met all of the criteria listed in Paragraph 127.

129. [United States Approval of the Candidates]

On November 30, 2016, the United States provided written notice to Enbridge that it approved the proposed list of candidates to serve as the Independent Third Party. In accordance with Paragraph 129, Enbridge subsequently informed OB Harris that it intended to retain OB Harris to serve as the ITP. A draft agreement was provided to OB Harris on December 15, 2016. A written agreement was then executed by the parties on January 11, 2017.

130. [United States Disapproval of the Candidates]

Enbridge was not required to fulfill this Paragraph since the United States approved the original proposed list of candidates as summarized above.

131. [Enbridge – ITP Agreement]

On January 12, 2017, Enbridge provided a copy of the executed agreement between Enbridge and OB Harris to the United States, meeting the requirement that this be done within five days of the contract execution.

132. [Enbridge – ITP Agreement Tasks]

In accordance with Paragraph 132, the agreement executed between Enbridge and the ITP requires the ITP to perform all tasks required of the ITP under Paragraphs 132, 133 and 134 of the Consent Decree. The provisions of the agreement are being effectuated by the ITP to the extent relevant, e.g., the ITP met with EPA in Chicago within the 60 day period specified in the Subparagraph 132.a.

133.b. [Enbridge Response to ITP Verification Report]

The agreement between Enbridge and the ITP includes the requirement, as per Paragraph 133.a, for the ITP to prepare a written verification report that sets forth the findings, conclusions and recommendations, if any, as to each of the requirements of Section VII of the Consent Decree, excluding Subsection VII.H [Spill Response and Preparedness]. The first such report is due 16 months after the Consent Decree's Dffective Date.

Pursuant to Subparagraph 133.b, Enbridge will submit to the EPA a response to all findings, conclusions and recommendations set forth in the ITP's Verification within 90 days after receiving the verification report.

134. [General Requirements]

To the extent appropriate, Enbridge has included the following requirements as part of its Agreement with the ITP for various Consent Decree activities:

a. ITP owes a duty to the United States to provide objective and fair assessment of Enbridge's compliance with the Consent Decree.
b. ITP shall provide Enbridge and the United States notice within two days should they no longer be able to continue to serve as the ITP for the Consent Decree.
c. Enbridge may terminate the agreement only for good cause shown and with the consent of the United States.
d. ITP shall provide EPA and Enbridge with advance schedule of any on-site visits, telephone calls, or other meetings with Enbridge or its agents or contractors and shall invite EPA to participate in any in person or by teleconference.
e. ITP must assess whether Enbridge's Semi-Annual Reports and other submittals pursuant to the Consent Decree are supported by the facts and best engineering judgment.
f. ITP shall share draft preliminary findings or reports with all Parties.
g. ITP shall ensure that all requirements of Injunctive Measure VII.J are met prior to hiring a subcontractor who would be responsible for tasks related to Paragraphs 132 and 133.
h. Compliance with the requirements specified in Subparagraph 134.h in the event that a suitable subcontractor cannot be identified by the ITP.
i. Clause regarding ITP personnel employment with Enbridge of at least three years following termination of the Consent Decree.
j. Requirements prohibiting commercial, business or voluntary services by ITP personnel for Enbridge for a period of at least three years following the termination of the Consent Decree.
k. Requirement that ITP disclose any conflicts of interests for it or its subcontractors that may arise with its review and verification of Enbridge's compliance with the Consent Decree, and any necessary actions to resolve such conflict to the United States.
l. Requirement that ITP and subcontractors annually certify compliance with Subparagraphs 134.g-k to the United States.
m. A provision that the Verification Report or any information developed or findings or recommendations of the ITP shall not be subject to any privilege or protection.

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135. [Enbridge Enforcement of the Agreement]

Enbridge continues to enforce the terms of its written agreement with the ITP to ensure compliance with Section VII.J of the Consent Decree.

136. [ITP Replacement]

This Paragraph of the Decree addresses replacement of the ITP, which is an issue that has not arisen since the Effective Date.

146. [Discharges from a Lakehead System Pipeline]

Identification of each discharge from a Lakehead System Pipeline of one or more barrels of oil, as well as any discharge of oil that reached any waterbody or waters of the United States or adjoining shoreline in a quantity as may be harmful is included in the table below. A brief summary and the reference to the appropriate appendix are located below:

As part of Enbridge's commitment to reporting all Post Incident Reports that were not previously requested and provided during the current semi-annual period, the reports have been included in Appendix 5.

Table 31: Discharges from a Lakehead System Pipeline

Table 31: Discharges from a Lakehead System Pipeline			
Spill Date (MM/DD/YYYY)	07/13/2017	10/18/2017	11/14/2017
National Response Centre #	1183969	1193571	Not Required
Spill Location	Mokena, Will County, IL	Griffith, Lake County, IN	Superior, Douglas County, WI
MP#/Facility Name	Mokena Station	Griffith Terminal	Superior Terminal
Equipment or Line Number	Line 14 Cross-Over Valve 461.17/6-XV-1	Booster Manifold 201 Bypass	Tank 45 Mixer
Cause of spill	Natural Force Damage (Frost Heave)	Corrosion	Equipment Failure
Spill Material	Crude Oil	Crude Oil	Crude Oil
Quantity of Spill	1.59 Barrels	10 Barrels	1.76 Barrels
Distance Spill Travelled	40 feet	720 feet	25 feet
Sheen, Sludge or Emulsion Observed	Sheen	Sludge	Sludge

Table 31: Discharges from a Lakehead System Pipeline			
Name of Water that Spill Entered (if applicable)	Enbridge owned retention pond	Not Applicable	Not Applicable
Water Quality Standard Exceeded/Violated	None	Not Applicable	Not Applicable
Actions Taken or Planned to Address Spill	Pipeline was shutdown	Affected Pipe Section was Removed from Service	Affected mixer was taken out of service and locked out
Actions Taken or Planned to Prevent Future Spills and Schedule for Future Actions	Valve was Repaired Project requested for replacing dike wall valve (outfall)	Determine if piping should be reinstalled	20 similar mixers on 5 tanks within the terminal have been locked out until the investigation was complete. Mixer bearings were sent to the manufacturer for a failure analysis.
Environmental Impacts from Spill	Soil, vegetation and surface water	Soil (Solely on Enbridge Property)	Gravel and clay road fill (Solely on Enbridge Property)
Root Cause	Frost heave	Internal corrosion	Mixer seal leak due to improper belt tension

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on any personal knowledge I may have and my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

FOR DEFENDANTS:

ENBRIDGE ENERGY, LIMITED PARTNERSHIP,
ENBRIDGE PIPELINES (LAKEHEAD) L.L.C.,
ENBRIDGE ENERGY PARTNERS, L.P.,
ENBRIDGE ENERGY MANAGEMENT, L.L.C.,
ENBRIDGE ENERGY COMPANY, INC., and
[redacted]

FOR DEFENDANTS:

ENBRIDGE OPERATIONAL SERVICES, INC.,
ENBRIDGE PIPELINES INC., and
[redacted]

Appendix 1 - Lakehead Leak Alarm Report [108,110,111]

Lakehead Leak Alarm Reports

- Summary of Alarms (SOA)
- Record of Alarms (ROA)
- Weekly List of Alarms (WLOA)
- Instrumentation Outage Report

Prepared by Pipeline Control

On December 20, 2017

For reporting period May 23, 2017 to November 22, 2017

Purpose of the Document

The following sections present four (4) reports from section **VII.G. LEAK DETECTION AND CONTROL ROOM OPERATIONS** of the Consent Decree.

The first three reports are for subsection **VII.G.V. Leak Detection Requirements for Control Room** of the decree. They list production MBS Leak Detection System (MBS) and Rupture Detection System (RDS) alarms in the Lakehead System:

1. The summary of alarms ("SOA") lists the total number of Alarms per pipeline and states whether or not Enbridge complied with the 10-Minute Rule in responding to Alarms. With respect to each non-compliance, it provides a reference to the post incident report which states the reason for the non-compliance and identifies the corrective action, if any, taken to prevent a recurrence of the non-compliance.
2. The record of alarms ("ROA") documents Unscheduled Shutdowns due to Alarms. Each record indicates an instance when the pipeline was shutdown with critical facts relating to the Alarm.
3. The weekly list of alarms ("WLOA") include Alarms broken down by pipeline, the type of Alarm, the total number of Alarms for the reporting period, the date of the Alarm, the time at which it began, and the time when the Alarm was cleared.

The fourth report is for subsection **VII.G.IV. Leak Detection Requirements for Pipelines** within the Lakehead System of the decree. The report lists instances when the outage exceeded time periods set forth in paragraph VII.G.IV.97 of the decree.

4. The instrumentation outage report documents two of the three "Reason for Instrumentation Outage" listed in paragraph VII.G.IV.97 of the decree:
    - *Instrumentation Failure*
    - *Scheduled Maintenance or repairs*
    - *Bypass ILI Tool* is documented separately.

Timestamps in the reports are in 24-hour Mountain Standard Time format.

For specific detailed requirements of the reports, please to refer to the Consent Decree.

Terms of Reference

Terms of Reference Table: Special Terms and Reference from the Consent Decree

The following section define terms copied from the Consent Decree for convenience. Please refer to the Consent Decree in case of any discrepancies.

Consent Decree Reference	Term	Definition
IV.10.dd	Lakehead System	The portion of the Mainline System within the United States that is comprised of fourteen pipelines – Lines 1, 2B, 3, 4, 5, 6A, 6B, 10, 14, 61, 62, 64, 65, and 67 – and all New Lakehead Pipelines.
IV.10.ii	Material Balance System or MBS Leak Detection System	The computational pipeline monitoring system used by Enbridge to detect leaks or ruptures in the Lakehead System.
IV.10.ggg	Shutdown	The operational period between (1) the initial cessation of pumping operations in a pipeline, or section of pipeline, through which oil has been actively flowing and (2) the point where the flow rate within the pipeline, or section of pipeline, is zero.
IV.10.iii	Startup	The operational period between (1) the commencement of pumping operations in a pipeline that had been previously shut down and (2) the point where oil in the pipeline achieves a Steady State.
VII.G.V.105	Alarm Response Team: CRO, LDA, STA	All Alarms shall be addressed by an Alarm Response Team, which shall be composed of the following individuals in the Control Room at the time that the Alarm occurs: 1. the Control Room operator ("CRO") who is responsible for the pipeline that generates the alarm, 2. the leak detection analyst ("LD Analyst"), and 3. the senior technical advisor for that pipeline.

Terms of Reference Table: Special Terms referenced in these reports.

The following section defines terms used by Enbridge for the purpose of these reports.

Consent Decree Reference	Term	Definition
VII.G.V.104	Alarm or Alarms	Alarm and Alarming Event are equivalent in these reports. An Alarming Event is an event with a single root cause but can generate one or more alarms. Enbridge documents alarms as events. In order to align with the information requested by the Consent Decree (such as root cause), Alarming Events are reported.

VII.G.V.108	Alarm Clearance	Alarm Clearance is the act of investigating whether an Alarm is truly a potential leak or a false alarm. The alarm clearance is a procedural act and not to be confused with the alarm status which is the binary state of in alarm state (ALM, often “1”) or returned to normal (RTN, often “0”).

I certify that for this reporting period, the information contained in the SOA, WLOA, and ROAs, is true and accurate, and Enbridge has complied with the 10-Minute Rule and other requirements of Sebsection VII.G.(V).

[redacted], Vice President, Pipeline Control

[redacted]

Signature [redacted]

[redacted]

Date

1. Summary of Alarms ("SOA")

The records in this report each contain data that are referenced by the Consent Decree. The terms are explained in the following table.

Table 1a: Description of fields in this Report

Data	Description
Pipeline	Name (number) of the pipeline
Total Alarms	Total number of alarm events for reporting period
Total Non-Compliance	**(Alarming)** Number of times Enbridge did not comply with the 10-Minute Rule in responding to Alarms **(Non-Alarming)** Number of times Enbridge did not comply with the 10-Minute Rule in responding to potential leak or rupture from a source other than an Alarm
Reasons and Corrective Actions for each Non-Compliance	Reference to the Post Incident Report describing reason for the non-compliance and the corrective action, if any, taken to prevent a reoccurrence of the non-compliance. An empty reference indicates either zero non-compliance to the 10-minute rule or the Post Incident Report is not yet generated.

Table 1b: Summary of Alarms (Reporting Period: May 23, 2017 to November 22, 2017)

Pipeline	Total Alarms	Total Non-Compliance (Alarming)	Total Non-Compliance (Non-alarming)	Reasons and Corrective Actions for each Non-Compliance
01	18	0	0	
02	19	0	0	
03	22	0	0	
04	5	0	0	
05	109[*]	0	0	
06A	21	0	0	
6B/78	31	0	0	
10	7	0	0	
14	21	0	0	
61	15	0	0	

[*] A number of planned field activities occurred on Line 5 between June 2017 and October 2017 resulting in an increased quantity of Alarms

Pipeline	Total Alarms	Total Non-Compliance (Alarming)	Total Non-Compliance (Non-alarming)	Reasons and Corrective Actions for each Non-Compliance
62	0	0	0	
64	0	0	0	
65	1	0	0	
67	11	0	0	

2. Record of Alarm ("ROA")

The records in this report each contain data that are referenced by the Consent Decree. The terms are explained in the following table.

Table 2a: Description of fields in this Report

Data	Description
Pipeline	Name (number) of the pipeline.
Alarming Event Start Time	Start of the Alarming Event that caused the alarm(s) to trigger. It is always the receipt time of the earliest alarm in an Alarming Event.
Alarm Received Time Alarm Assessed Time	Time that the alarm was received for each individual alarm within the Alarming Event. Each alarm is simultaneously received by all members of the alarm response team. Time that the alarm was assessed for each individual alarm within the Alarming Event. Each alarm is assessed by each independent member of the alarm response team; an alarm is considered assessed when all members of the alarm response team has assessed.
Root Cause	Cause and classification of the Alarm. An empty field indicates the root cause has not yet been documented.
CRO and STA Actions	Procedures executed by the control room operator (OP) and the senior technical advisor (STA) which define the positions (i.e. role) of the Alarm Recipients, the actions (or inactions) of the Alarm Response Team, and each fact considered in determining the cause of the Alarm. An empty field indicates the actions or procedures have not yet been documented.

Table 2a: Description of fields in this Report

LDA Actions	Procedures executed by the leak detection analyst (LDA) which define the positions (i.e. role) of the Alarm Recipients, the actions (or inactions) of the Alarm Response Team, and each fact considered in determining the cause of the Alarm. An empty field indicates the actions or procedures have not yet been documented.
Shutdown Commenced	Time the Unscheduled Shutdown commenced. An empty time indicates the Shutdown Commenced has not yet been documented.
Shutdown Completed	Time the Unscheduled Shutdown completed. An empty time indicates the Shutdown Completed has not yet been documented.
Justification for Resumption	Justification for resumption of pumping operations. An empty time indicates the Justification for Resumption has not yet been documented.
Startup Commenced	Time that pumping operations resumed. An empty time indicates the Startup Commenced has not yet been documented.
Were Procedures Followed	Certification of compliance with 10-Minute Rule. An empty field indicates the certification of compliance has not yet been documented.
Post Incident Report	Reference of Post-Incident Report if not in compliance with the 10-Minute Rule. An empty reference indicates the Post Incident Report is not needed or has not yet been documented.

Table 2b: Record of Alarm

Line 78 - 2017-05-29 22:58:28

Pipeline	78
Alarming Event Start Time	2017-05-29 22:24:32
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time**	2017-05-29 22:24:32 2017-05-29 23:43:21 2017-05-29 22:28:32 2017-05-29 22:48:44
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-05-29 22:39:00 ***Note:*** *Each alarm was assessed in accordance with the 10-minute rule. Shutdown Commenced time corresponds to the second alarm as it occurred on a flowing segment of the pipeline. The first alarm occurred on a segment of the pipeline that is not flowing and did not require a shutdown.*
Shutdown Completed	2017-05-29 22:49:00
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-05-29 23:15:00
Were Procedures Followed	Yes
Post Incident Report	

Line 02 - 2017-06-06 19:14:56

Pipeline	02
Alarming Event Start Time	2017-06-06 18:14:28
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-06-06 18:14:28 2017-06-06 19:09:51
Root Cause	DRA Problem
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-06-06 18:23:00
Shutdown Completed	2017-06-06 18:31:00
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-06-06 19:16:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-06-09 06:25:00

Pipeline	05
Alarming Event Start Time	2017-06-09 06:08:12
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-06-09 06:08:12 2017-06-09 06:24:15
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-06-09 05:54:00 ***Note:*** *Line 5 was in the process of shutting down when the alarm was generated. The Shutdown Commenced time identifies when the shutdown was initiated.*
Shutdown Completed	2017-06-09 06:14:00
Justification for Resumption	CCO investigation identified no leak triggers - Regional and CCO admin approval granted
Startup Commenced	2017-06-09 10:00:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-06-11 11:24:17

Pipeline	05
Alarming Event Start Time	2017-06-11 11:08:24
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-06-11 11:08:24 2017-06-11 11:19:30
Root Cause	LD Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-06-12 07:40:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-06-23 03:52:51

Pipeline	05
Alarming Event Start Time	2017-06-23 03:13:18
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-06-23 03:13:18 2017-06-23 03:35:30
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	2017-06-23 03:07:00 ***Note:*** *Line 5 was in the process of shutting down when the alarm was generated. The Shutdown Commenced time identifies when the shutdown was initiated.*
Shutdown Completed	2017-06-23 03:32:00
Justification for Resumption	Static Pressure Monitoring of System over 60 minutes with receiving Region and CCO Admin approvals
Startup Commenced	2017-06-23 05:02:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-06-24 06:21:44

Pipeline	05
Alarming Event Start Time	2017-06-24 06:08:12
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-06-24 06:08:12 2017-06-24 06:17:33
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	2017-06-24 05:59:00 ***Note:*** *Line 5 was in the process of shutting down when the alarm was generated. The Shutdown Commenced time identifies when the shutdown was initiated.*
Shutdown Completed	2017-06-24 06:11:00
Justification for Resumption	Static Pressure Monitoring of System over 60 minutes with receiving Region and CCO Admin approvals
Startup Commenced	2017-06-24 08:21:00
Were Procedures Followed	Yes
Post Incident Report	

Line 01 - 2017-06-26 06:19:08

Pipeline	01
Alarming Event Start Time	2017-06-26 06:02:59
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time**	2017-06-26 06:02:59 2017-06-26 06:11:30 2017-06-26 06:05:59 2017-06-26 06:11:34 2017-06-26 06:10:58 2017-06-26 06:20:42
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-06-27 15:00:00
Were Procedures Followed	Yes
Post Incident Report	

Line 01 - 2017-06-26 10:52:04

Pipeline	01
Alarming Event Start Time	2017-06-26 10:42:03
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time**	2017-06-26 10:42:03 2017-06-26 10:48:29 2017-06-26 10:42:33 2017-06-26 10:48:26 2017-06-26 10:46:03 2017-06-26 10:48:20
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-06-27 15:00:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-07-06 02:19:54

Pipeline	05
Alarming Event Start Time	2017-07-06 02:02:08
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-07-06 02:02:08 2017-07-06 02:11:23
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	CCO investigation identified no leak triggers - Regional and CCO admin approval granted
Startup Commenced	2017-07-06 06:56:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-07-06 15:37:46

Pipeline	05
Alarming Event Start Time	2017-07-06 14:56:36
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-07-06 14:56:36 2017-07-06 15:06:17
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	2017-07-06 14:48:00 ***Note:*** *Line 5 was in the process of shutting down when the alarm was generated. The Shutdown Commenced time identifies when the shutdown was initiated.*
Shutdown Completed	2017-07-06 15:08:00
Justification for Resumption	CCO investigation identified no leak triggers - Regional and CCO admin approval granted
Startup Commenced	2017-07-06 16:45:00
Were Procedures Followed	Yes
Post Incident Report	

Line 01 - 2017-07-06 21:59:47

Pipeline	01
Alarming Event Start Time	2017-07-06 21:44:04
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-07-06 21:44:04 2017-07-06 21:57:41
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-07-08 22:06:00
Were Procedures Followed	Yes
Post Incident Report	

Line 14 - 2017-07-13 13:02:56

Pipeline	14
Alarming Event Start Time	2017-07-13 12:15:50
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-07-13 12:15:50 2017-07-13 12:45:14
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-07-13 12:50:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-07-18 08:31:49

Pipeline	05
Alarming Event Start Time	2017-07-18 07:12:57
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-07-18 07:12:57 2017-07-18 08:16:07
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-07-18 07:03:00 ***Note:*** *Line 5 was in the process of shutting down when the alarm was generated. The Shutdown Commenced time identifies when the shutdown was initiated.*
Shutdown Completed	2017-07-18 07:17:00
Justification for Resumption	CCO investigation identified no leak triggers - Regional and CCO admin approval granted
Startup Commenced	2017-07-18 09:43:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-07-19 06:45:07

Pipeline	05
Alarming Event Start Time	2017-07-19 05:32:46
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-07-19 05:32:46 2017-07-19 06:06:28
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-07-19 05:57:00
Were Procedures Followed	Yes
Post Incident Report	

Line 06A - 2017-07-20 23:23:52

Pipeline	06A
Alarming Event Start Time	2017-07-20 22:16:01
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time** **alarm 4: Alarm Received Time** **alarm 4: Alarm Assessed Time** **alarm 5: Alarm Received Time** **alarm 5: Alarm Assessed Time**	2017-07-20 22:16:01 2017-07-20 22:26:13 2017-07-20 22:16:01 2017-07-20 22:26:16 2017-07-20 22:18:32 2017-07-20 22:26:17 2017-07-20 22:24:31 2017-07-20 22:27:43 2017-07-20 22:25:31 2017-07-20 22:27:45
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	2017-07-20 22:26:00
Shutdown Completed	2017-07-20 22:43:00
Justification for Resumption	Aerial Patrol Performed -Regional and CCO admin approval granted
Startup Commenced	2017-07-21 12:50:00
Were Procedures Followed	Yes
Post Incident Report	

Line 06A - 2017-07-21 13:11:46

Pipeline	06A
Alarming Event Start Time	2017-07-21 12:56:35
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time** **alarm 4: Alarm Received Time** **alarm 4: Alarm Assessed Time**	2017-07-21 12:56:35 2017-07-21 13:10:29 2017-07-21 12:56:35 2017-07-21 13:10:22 2017-07-21 12:56:35 2017-07-21 13:10:20 2017-07-21 12:57:35 2017-07-21 13:10:17
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	2017-07-21 13:07:00
Shutdown Completed	2017-07-21 13:11:00
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-07-21 13:30:00
Were Procedures Followed	Yes
Post Incident Report	

Line 14 - 2017-07-21 16:09:17

Pipeline	14
Alarming Event Start Time	2017-07-21 15:56:06
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time**	2017-07-21 15:56:06 2017-07-21 16:03:38 2017-07-21 15:56:36 2017-07-21 16:03:36
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-07-21 17:00:00
Were Procedures Followed	Yes
Post Incident Report	

Line 61 - 2017-07-21 21:03:08

Pipeline	61
Alarming Event Start Time	2017-07-21 20:29:13
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-07-21 20:29:13 2017-07-21 20:57:30
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	2017-07-21 20:39:00
Shutdown Completed	2017-07-21 20:56:00
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-07-21 21:22:00
Were Procedures Followed	Yes
Post Incident Report	

Line 01 - 2017-07-28 22:33:55

Pipeline	01
Alarming Event Start Time	2017-07-28 22:06:53
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-07-28 22:06:53 2017-07-28 22:29:23
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-07-29 21:43:00
Were Procedures Followed	Yes
Post Incident Report	

Line 01 - 2017-08-01 12:49:35

Pipeline	01
Alarming Event Start Time	2017-08-01 12:03:11
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-08-01 12:03:11 2017-08-01 12:42:26
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-08-02 20:00:00
Were Procedures Followed	Yes
Post Incident Report	

Line 78 - 2017-08-03 23:41:38

Pipeline	78
Alarming Event Start Time	2017-08-03 22:37:00
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time**	2017-08-03 22:37:00 2017-08-03 22:39:00 2017-08-03 22:37:30 2017-08-03 22:49:42
Root Cause	Communication Interruption
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-08-04 03:15:00
Were Procedures Followed	Yes
Post Incident Report	

Line 67 - 2017-08-06 09:58:41

Pipeline	67
Alarming Event Start Time	2017-08-06 09:30:07
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time**	2017-08-06 09:30:07 2017-08-06 09:52:05 2017-08-06 09:30:38 2017-08-06 09:52:07 2017-08-06 09:31:08 2017-08-06 09:52:10
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	2017-08-06 09:37:00
Shutdown Completed	2017-08-06 09:56:00
Justification for Resumption	Aerial Patrol Performed -Regional and CCO admin approval granted
Startup Commenced	2017-08-06 18:14:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-08-17 08:48:35

Pipeline	05
Alarming Event Start Time	2017-08-17 08:38:35
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time**	2017-08-17 08:38:35 2017-08-17 08:46:38 2017-08-17 08:38:35 2017-08-17 08:46:40 2017-08-17 08:40:35 2017-08-17 08:46:41
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis – Alarm
Shutdown Commenced	2017-08-17 08:45:00
Shutdown Completed	2017-08-17 08:55:00
Justification for Resumption	Static Pressure Monitoring of System over 60 minutes with receiving Region and CCO Admin approvals
Startup Commenced	2017-08-17 12:40:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-08-31 22:29:33

Pipeline	05
Alarming Event Start Time	2017-08-31 22:12:23
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time**	2017-08-31 22:12:23 2017-08-31 22:29:16 2017-08-31 22:12:23 2017-08-31 22:29:18 2017-08-31 22:37:24 2017-08-31 22:44:29
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - AVB - System Analysis - Alarm, LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-08-31 22:09:00 ***Note:*** *Line 5 was in the process of shutting down when the alarm was generated. The Shutdown Commenced time identifies when the shutdown was initiated.*
Shutdown Completed	2017-08-31 22:31:00
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-08-31 23:15:00
Were Procedures Followed	Yes
Post Incident Report	

Line 78 - 2017-09-06 04:32:20

Pipeline	78
Alarming Event Start Time	2017-09-06 04:21:59
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-09-06 04:21:59 2017-09-06 04:30:21
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	Aerial Patrol Performed -Regional and CCO admin approval granted
Startup Commenced	2017-09-06 14:19:00
Were Procedures Followed	Yes
Post Incident Report	

Line 78 - 2017-09-06 10:54:10

Pipeline	78
Alarming Event Start Time	2017-09-06 10:12:09
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-09-06 10:12:09 2017-09-06 10:17:15
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-09-06 14:19:00
Were Procedures Followed	Yes
Post Incident Report	

Line 14 - 2017-09-07 07:47:57

Pipeline	14
Alarming Event Start Time	2017-09-07 07:15:55
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time**	2017-09-07 07:15:55 2017-09-07 08:53:34 2017-09-07 07:15:55 2017-09-07 08:53:33
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-09-07 12:00:00
Were Procedures Followed	Yes
Post Incident Report	

Line 14 - 2017-09-11 17:27:24

Pipeline	14
Alarming Event Start Time	2017-09-11 17:17:22
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-09-11 17:17:22 2017-09-11 17:21:33
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-09-12 03:21:00
Were Procedures Followed	Yes
Post Incident Report	

Line 14 - 2017-09-12 03:11:32

Pipeline	14
Alarming Event Start Time	2017-09-12 03:00:51
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-09-12 03:00:51 2017-09-12 03:16:41
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-09-12 03:21:00
Were Procedures Followed	Yes
Post Incident Report	

Line 02 - 2017-09-16 15:09:32

Pipeline	02
Alarming Event Start Time	2017-09-16 14:41:25
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time**	2017-09-16 14:41:25 2017-09-16 15:08:54 2017-09-16 14:58:56 2017-09-16 15:08:55
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-09-16 14:52:00
Shutdown Completed	2017-09-16 15:07:00
Justification for Resumption	CCO investigation identified no leak triggers - Regional and CCO admin approval granted
Startup Commenced	2017-09-16 17:00:00
Were Procedures Followed	Yes
Post Incident Report	

Line 67 - 2017-09-19 09:59:24

Pipeline	67
Alarming Event Start Time	2017-09-19 09:11:13
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-09-19 09:11:13 2017-09-19 09:53:04
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-09-19 09:21:00
Shutdown Completed	2017-09-19 09:43:00
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-09-19 11:33:00
Were Procedures Followed	Yes
Post Incident Report	

Line 67 - 2017-10-08 11:51:43

Pipeline	67
Alarming Event Start Time	2017-10-08 11:32:29
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-10-08 11:32:29 2017-10-08 11:35:53
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-10-08 13:18:00
Were Procedures Followed	Yes
Post Incident Report	

Line 03 - 2017-10-11 10:07:59

Pipeline	03
Alarming Event Start Time	2017-10-11 09:19:13
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time** **alarm 4: Alarm Received Time** **alarm 4: Alarm Assessed Time** **alarm 5: Alarm Received Time** **alarm 5: Alarm Assessed Time** **alarm 6: Alarm Received Time** **alarm 6: Alarm Assessed Time**	2017-10-11 09:19:13 2017-10-11 09:36:15 2017-10-11 09:19:13 2017-10-11 09:36:11 2017-10-11 09:19:13 2017-10-11 09:36:17 2017-10-11 09:24:42 2017-10-11 09:36:09 2017-10-11 09:36:43 2017-10-11 09:37:54 2017-10-11 09:36:43 2017-10-11 09:37:52
Root Cause	Field Maintenance
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-10-11 09:40:00
Were Procedures Followed	Yes
Post Incident Report	

Line 78 - 2017-10-13 01:15:44

Pipeline	78
Alarming Event Start Time	2017-10-13 00:36:43
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time**	2017-10-13 00:36:43 2017-10-13 00:42:52 2017-10-13 01:58:14 2017-10-13 02:03:54
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-10-13 01:57:00
Were Procedures Followed	Yes
Post Incident Report	

Line 14 - 2017-10-13 01:15:52

Pipeline	14
Alarming Event Start Time	2017-10-13 00:38:25
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-10-13 00:38:25 2017-10-13 01:00:56
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-10-13 00:45:00
Shutdown Completed	2017-10-13 01:01:00
Justification for Resumption	Visual inspection performed by field staff - Regional / CCO admin approval granted
Startup Commenced	2017-10-13 12:20:00
Were Procedures Followed	Yes
Post Incident Report	

Line 14 - 2017-10-13 05:39:24

Pipeline	14
Alarming Event Start Time	2017-10-13 05:29:23
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time**	2017-10-13 05:29:23 2017-10-13 05:33:05 2017-10-13 05:30:23 2017-10-13 05:33:02
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-10-13 12:24:00
Were Procedures Followed	Yes
Post Incident Report	

Line 78 - 2017-10-13 08:27:47

Pipeline	78
Alarming Event Start Time	2017-10-13 07:32:50
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-10-13 07:32:50 2017-10-13 08:27:12
Root Cause	Batch Misalignment
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-10-13 07:41:00
Shutdown Completed	2017-10-13 07:51:00
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-10-13 08:45:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-10-17 12:45:55

Pipeline	05
Alarming Event Start Time	2017-10-17 11:13:47
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time**	2017-10-17 11:13:47 2017-10-17 12:32:45 2017-10-17 11:14:48 2017-10-17 12:32:47 2017-10-17 11:22:53 2017-10-17 12:32:51
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-10-17 11:24:00
Shutdown Completed	2017-10-17 11:39:00
Justification for Resumption	CCO approval obtained by Emergency Notification Procedure
Startup Commenced	2017-10-17 13:15:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-10-17 17:58:57

Pipeline	05
Alarming Event Start Time	2017-10-17 16:25:38
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-10-17 16:25:38 2017-10-17 17:35:15
Root Cause	Batch Misalignment
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-10-17 16:35:00
Shutdown Completed	2017-10-17 16:46:00
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-11-17 18:30:00
Were Procedures Followed	Yes
Post Incident Report	

Line 02 - 2017-10-21 09:22:38

Pipeline	02
Alarming Event Start Time	2017-10-21 09:10:31
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-10-21 09:10:31 2017-10-21 09:20:36
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-10-21 09:20:00
Shutdown Completed	2017-10-21 09:35:00
Justification for Resumption	Aerial Patrol Performed -Regional and CCO admin approval granted
Startup Commenced	2017-10-21 15:00:00
Were Procedures Followed	Yes
Post Incident Report	

Line 05 - 2017-10-24 07:15:16

Pipeline	05
Alarming Event Start Time	2017-10-24 06:57:46
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-10-24 06:57:46 2017-10-24 07:12:53
Root Cause	Batch Misalignment
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-10-24 07:07:00
Shutdown Completed	2017-10-24 07:20:00
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-10-24 07:40:00
Were Procedures Followed	Yes
Post Incident Report	

Line 02 - 2017-10-25 10:32:21

Pipeline	02
Alarming Event Start Time	2017-10-25 10:22:21
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time**	2017-10-25 10:22:21 2017-10-25 10:28:35 2017-10-25 10:23:21 2017-10-25 10:28:39 2017-10-25 10:31:21 2017-10-25 10:40:44
Root Cause	Transient Condition
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-10-25 10:18:00 ***Note:*** *Line was in the process of shutting down when the alarm was generated. The Shutdown Commenced time identifies when the shutdown was initiated.*
Shutdown Completed	2017-10-25 10:41:00
Justification for Resumption	Static Pressure Monitoring of System over 60 minutes with receiving Region and CCO Admin approvals
Startup Commenced	2017-10-25 15:51:00
Were Procedures Followed	Yes
Post Incident Report	

Line 02 - 2017-11-01 05:25:05

Pipeline	02
Alarming Event Start Time	2017-11-01 04:29:43
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-11-01 04:29:43 2017-11-01 05:29:08
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers
Startup Commenced	2017-11-01 16:00:00
Were Procedures Followed	Yes
Post Incident Report	

Line 06A - 2017-11-01 05:25:13

Pipeline	06A
Alarming Event Start Time	2017-11-01 05:05:41
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time**	2017-11-01 05:05:41 2017-11-01 05:09:32
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-11-01 06:15:00
Were Procedures Followed	Yes
Post Incident Report	

Line 06A - 2017-11-01 07:19:15

Pipeline	06A
Alarming Event Start Time	2017-11-01 06:38:13
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time** **alarm 4: Alarm Received Time** **alarm 4: Alarm Assessed Time** **alarm 5: Alarm Received Time** **alarm 5: Alarm Assessed Time** **alarm 6: Alarm Received Time** **alarm 6: Alarm Assessed Time** **alarm 7: Alarm Received Time** **alarm 7: Alarm Assessed Time** **alarm 8: Alarm Received Time** **alarm 8: Alarm Assessed Time** **alarm 9: Alarm Received Time** **alarm 9: Alarm Assessed Time** **alarm 10: Alarm Received Time** **alarm 10: Alarm Assessed Time** **alarm 11: Alarm Received Time** **alarm 11: Alarm Assessed Time** **alarm 12: Alarm Received Time** **alarm 12: Alarm Assessed Time** **alarm 13: Alarm Received Time** **alarm 13: Alarm Assessed Time** **alarm 14: Alarm Received Time** **alarm 14: Alarm Assessed Time** **alarm 15: Alarm Received Time** **alarm 15: Alarm Assessed Time**	2017-11-01 06:38:13 2017-11-01 07:22:17 2017-11-01 06:38:13 2017-11-01 07:22:19 2017-11-01 06:43:13 2017-11-01 07:22:20 2017-11-01 06:43:13 2017-11-01 07:22:21 2017-11-01 06:43:13 2017-11-01 07:22:22 2017-11-01 06:46:44 2017-11-01 07:22:24 2017-11-01 06:46:44 2017-11-01 07:22:25 2017-11-01 07:00:50 2017-11-01 07:22:28 2017-11-01 07:00:50 2017-11-01 07:22:31 2017-11-01 07:00:50 2017-11-01 07:22:33 2017-11-01 07:09:14 2017-11-01 07:22:34 2017-11-01 07:09:14 2017-11-01 07:22:36 2017-11-01 07:11:07 2017-11-01 07:22:37 2017-11-01 07:11:07 2017-11-01 07:22:38 2017-11-01 07:11:07 2017-11-01 07:22:39
Root Cause	LDS Error
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-11-01 06:47:00
Shutdown Completed	2017-11-01 07:00:00
Justification for Resumption	After shutdown, alarm deemed invalid and no unexplained leak triggers

Startup Commenced	2017-11-01 08:30:00
Were Procedures Followed	Yes
Post Incident Report	

Line 01 - 2017-11-03 22:31:32

Pipeline	01
Alarming Event Start Time	2017-11-03 21:00:04
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time**	2017-11-03 21:00:04 2017-11-03 21:09:51 2017-11-03 21:02:33 2017-11-03 21:09:52
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	2017-11-03 21:10:00
Shutdown Completed	2017-11-03 21:28:00
Justification for Resumption	CCO approval obtained by Emergency Notification Procedure
Startup Commenced	2017-11-03 23:15:00
Were Procedures Followed	Yes
Post Incident Report	

Line 61 - 2017-11-07 02:53:28

Pipeline	61
Alarming Event Start Time	2017-11-07 02:43:27
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time** **alarm 4: Alarm Received Time** **alarm 4: Alarm Assessed Time** **alarm 5: Alarm Received Time** **alarm 5: Alarm Assessed Time** **alarm 6: Alarm Received Time** **alarm 6: Alarm Assessed Time**	2017-11-07 02:43:27 2017-11-07 02:49:39 2017-11-07 02:45:27 2017-11-07 02:49:44 2017-11-07 02:48:26 2017-11-07 02:49:46 2017-11-07 05:12:26 2017-11-07 05:14:42 2017-11-07 05:19:25 2017-11-07 05:22:37 2017-11-07 06:04:25 2017-11-07 06:06:40
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-11-07 14:45:00
Were Procedures Followed	Yes
Post Incident Report	

Line 61 - 2017-11-07 07:09:01

Pipeline	61
Alarming Event Start Time	2017-11-07 06:55:55
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time**	2017-11-07 06:55:55 2017-11-07 06:59:46 2017-11-07 06:56:27 2017-11-07 06:59:47 2017-11-07 07:03:27 2017-11-07 07:06:03
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-11-07 14:45:00
Were Procedures Followed	Yes
Post Incident Report	

Line 03 - 2017-11-11 12:51:38

Pipeline	03
Alarming Event Start Time	2017-11-11 08:58:21
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time** **alarm 3: Alarm Received Time** **alarm 3: Alarm Assessed Time**	2017-11-11 08:58:21 2017-11-11 09:36:49 2017-11-11 08:58:21 2017-11-11 09:36:46 2017-11-11 08:58:21 2017-11-11 09:36:43
Root Cause	Suspected Leak CCO
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	Aerial Patrol Performed -Regional and CCO admin approval granted
Startup Commenced	2017-11-11 15:50:00
Were Procedures Followed	Yes
Post Incident Report	

Line 03 - 2017-11-11 14:46:19

Pipeline	03
Alarming Event Start Time	2017-11-11 14:29:06
alarm 1: Alarm Received Time **alarm 1: Alarm Assessed Time** **alarm 2: Alarm Received Time** **alarm 2: Alarm Assessed Time**	2017-11-11 14:29:06 2017-11-11 14:37:52 2017-11-11 14:29:06 2017-11-11 14:37:50
Root Cause	Column Separation
CRO and STA Actions	LDAM - Leak Detection System (LDS) Alarm - Non-Flowing Pipeline
LDA Actions	LD - MBS - System Analysis - Alarm
Shutdown Commenced	Not Applicable - pipeline was already Shutdown and Sectionalized
Shutdown Completed	Not Applicable - pipeline was already Shutdown and Sectionalized
Justification for Resumption	After shutdown, alarm deemed valid and column separation identified with no unexplained leak trigger
Startup Commenced	2017-11-11 15:50:00
Were Procedures Followed	Yes
Post Incident Report	

3. Weekly List of Alarms ("WLOA")

The records in this report each contain data that are referenced by the Consent Decree. The terms are explained in the following table.

Table 3a: Description of fields in this Report

Data	Description
Week	ISO 8601 week date label to identify the week in the "weekly" list of alarms.
Pipeline	Name (number) of the pipeline.
Type	Type of alarm (AVB, MBS or RDS): AVB are 1-hour or 24-hour MBS alarms MBS are 5-minute, 20-minute, or 2-hour MBS alarms RDS are Rupture Detection System alarms
Alarming Event Start Time	Start of the Alarming Event that caused the alarm(s) to trigger. It is always the receipt time of the earliest alarm in an Alarming Event.
Alarm Received Time	Time that the alarm was received for each individual alarm within the Alarming Event. Each alarm is simultaneously received by all members of the alarm response team.
Alarm Assessed Time	Time that the alarm was assessed for each individual alarm within the Alarming Event. Each alarm is assessed by each independent member of the alarm response team; an alarm is considered assessed when all members of the alarm response team has assessed.
Alarm Cleared Time	The date and time when the Alarm was cleared. An empty time indicates the Alarm has not yet been cleared as of the printing of this report.
Shutdown Required	Indication of whether this Alarm resulted in a shutdown.

Table 3b: Weekly List of Alarms

2017 Week 21: 4 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-05-28 12:56:55	alarm 1: 2017-05-28 12:56:55	alarm 1: 2017-05-28 13:00:02	alarm 1: 2017-05-28 13:00:02	No
02	MBS	2017-05-28 01:36:41	alarm 1: 2017-05-28 01:36:41	alarm 1: 2017-05-28 01:41:58	alarm 1: 2017-05-28 01:41:58	No
05	MBS	2017-05-28 15:51:47	alarm 1: 2017-05-28 15:51:47	alarm 1: 2017-05-28 15:57:07	alarm 1: 2017-05-28 15:57:07	No
78	MBS	2017-05-28 12:28:04	alarm 1: 2017-05-28 12:28:04	alarm 1: 2017-05-28 12:30:51	alarm 1: 2017-05-28 12:30:51	No

2017 Week 22: 5 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
05	MBS	2017-05-29 13:47:31	alarm 1: 2017-05-29 13:47:31	alarm 1: 2017-05-29 13:51:56	alarm 1: 2017-05-29 13:51:56	No
05	MBS	2017-06-03 15:13:41	alarm 1: 2017-06-03 15:13:41	alarm 1: 2017-06-03 15:14:54	alarm 1: 2017-06-03 15:14:54	No
61	MBS	2017-06-02 13:09:45	alarm 1: 2017-06-02 13:09:45 alarm 2: 2017-06-02 13:12:45	alarm 1: 2017-06-02 13:16:04 alarm 2: 2017-06-02 13:16:02	alarm 1: 2017-06-02 13:16:04 alarm 2: 2017-06-02 13:16:02	No
78	MBS	2017-05-29 22:24:32	alarm 1: 2017-05-29 22:24:32 alarm 2: 2017-05-29 22:28:32	alarm 1: 2017-05-29 23:43:21 alarm 2: 2017-05-29 22:48:44	alarm 1: 2017-05-29 23:01:00 alarm 2: 2017-05-29 23:01:00	Yes
78	MBS	2017-05-31 21:02:19	alarm 1: 2017-05-31 21:02:19	alarm 1: 2017-05-31 21:06:50	alarm 1: 2017-05-31 21:06:50	No

2017 Week 23: 16 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	MBS	2017-06-06 18:14:28	alarm 1: 2017-06-06 18:14:28	alarm 1: 2017-06-06 19:09:51	alarm 1: 2017-06-06 19:11:00	Yes
05	MBS	2017-06-06 03:55:55	alarm 1: 2017-06-06 03:55:55	alarm 1: 2017-06-06 04:00:28	alarm 1: 2017-06-06 04:00:28	No
05	MBS	2017-06-06 18:07:49	alarm 1: 2017-06-06 18:07:49	alarm 1: 2017-06-06 18:11:11	alarm 1: 2017-06-06 18:11:11	No
05	MBS	2017-06-06 22:47:35	alarm 1: 2017-06-06 22:47:35	alarm 1: 2017-06-06 22:52:17	alarm 1: 2017-06-06 22:52:17	No
05	MBS	2017-06-09 06:08:12	alarm 1: 2017-06-09 06:08:12	alarm 1: 2017-06-09 06:24:15	alarm 1: 2017-06-09 08:37:00	Yes
05	MBS	2017-06-10 02:29:52	alarm 1: 2017-06-10 02:29:52	alarm 1: 2017-06-10 02:37:30	alarm 1: 2017-06-10 02:37:30	No
05	MBS	2017-06-10 17:49:16	alarm 1: 2017-06-10 17:49:16 alarm 2: 2017-06-10 17:49:16	alarm 1: 2017-06-10 17:56:08 alarm 2: 2017-06-10 17:56:03	alarm 1: 2017-06-10 17:56:08 alarm 2: 2017-06-10 17:56:03	No
05	MBS	2017-06-11 03:04:08	alarm 1: 2017-06-11 03:04:08	alarm 1: 2017-06-11 03:06:41	alarm 1: 2017-06-11 03:06:41	No
05	MBS	2017-06-11 11:08:24	alarm 1: 2017-06-11 11:08:24	alarm 1: 2017-06-11 11:19:30	alarm 1: 2017-06-11 11:29:00	Yes
05	MBS	2017-06-11 12:35:26	alarm 1: 2017-06-11 12:35:26	alarm 1: 2017-06-11 12:43:51	alarm 1: 2017-06-11 12:43:51	No
05	MBS	2017-06-11 20:31:18	alarm 1: 2017-06-11 20:31:18	alarm 1: 2017-06-11 20:35:00	alarm 1: 2017-06-11 20:35:00	No
06A	MBS	2017-06-06 05:20:55	alarm 1: 2017-06-06 05:20:55 alarm 2: 2017-06-06 05:21:55	alarm 1: 2017-06-06 05:25:14 alarm 2: 2017-06-06 05:25:16	alarm 1: 2017-06-06 05:25:14 alarm 2: 2017-06-06 05:25:16	No
06A	MBS	2017-06-06 21:18:23	alarm 1: 2017-06-06 21:18:23	alarm 1: 2017-06-06 21:24:41	alarm 1: 2017-06-06 21:24:41	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
14	MBS	2017-06-11 09:18:26	alarm 1: 2017-06-11 09:18:26	alarm 1: 2017-06-11 09:25:40	alarm 1: 2017-06-11 09:25:40	No
78	MBS	2017-06-06 11:09:40	alarm 1: 2017-06-06 11:09:40 alarm 2: 2017-06-06 11:09:40	alarm 1: 2017-06-06 11:12:55 alarm 2: 2017-06-06 11:12:57	alarm 1: 2017-06-06 11:12:55 alarm 2: 2017-06-06 11:12:57	No
78	MBS	2017-06-08 15:20:56	alarm 1: 2017-06-08 15:20:56 alarm 2: 2017-06-08 15:23:26	alarm 1: 2017-06-08 15:24:22 alarm 2: 2017-06-08 15:24:21	alarm 1: 2017-06-08 15:24:22 alarm 2: 2017-06-08 15:24:21	No

2017 Week 24: 10 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	MBS	2017-06-14 03:02:34	alarm 1: 2017-06-14 03:02:34 alarm 2: 2017-06-14 03:03:04	alarm 1: 2017-06-14 03:07:27 alarm 2: 2017-06-14 03:07:25	alarm 1: 2017-06-14 03:07:27 alarm 2: 2017-06-14 03:07:25	No
05	MBS	2017-06-15 12:53:15	alarm 1: 2017-06-15 12:53:15 alarm 2: 2017-06-15 13:06:45	alarm 1: 2017-06-15 12:57:45 alarm 2: 2017-06-15 13:09:21	alarm 1: 2017-06-15 12:57:45 alarm 2: 2017-06-15 13:09:21	No
05	MBS	2017-06-17 05:01:30	alarm 1: 2017-06-17 05:01:30 alarm 2: 2017-06-17 05:01:59	alarm 1: 2017-06-17 05:10:51 alarm 2: 2017-06-17 05:10:54	alarm 1: 2017-06-17 05:10:51 alarm 2: 2017-06-17 05:10:54	No
05	MBS	2017-06-17 09:55:12	alarm 1: 2017-06-17 09:55:12	alarm 1: 2017-06-17 09:57:01	alarm 1: 2017-06-17 09:57:01	No
05	MBS	2017-06-17 22:17:38	alarm 1: 2017-06-17 22:17:38	alarm 1: 2017-06-17 22:20:24	alarm 1: 2017-06-17 22:20:24	No
05	AVB	2017-06-18 00:51:42	alarm 1: 2017-06-18 00:51:42	alarm 1: 2017-06-18 00:53:44	alarm 1: 2017-06-18 00:53:44	No
10	MBS	2017-06-16 13:21:37	alarm 1: 2017-06-16 13:21:37	alarm 1: 2017-06-16 13:23:47	alarm 1: 2017-06-16 13:23:47	No
10	MBS	2017-06-16 17:25:12	alarm 1: 2017-06-16 17:25:12 alarm 2: 2017-06-16 17:25:42	alarm 1: 2017-06-16 17:29:14 alarm 2: 2017-06-16 17:29:15	alarm 1: 2017-06-16 17:29:14 alarm 2: 2017-06-16 17:29:15	No
78	MBS	2017-06-14 14:53:59	alarm 1: 2017-06-14 14:53:59	alarm 1: 2017-06-14 15:00:14	alarm 1: 2017-06-14 15:00:14	No
78	MBS	2017-06-15 11:54:19	alarm 1: 2017-06-15 11:54:19 alarm 2: 2017-06-15 11:54:19	alarm 1: 2017-06-15 11:55:51 alarm 2: 2017-06-15 11:55:47	alarm 1: 2017-06-15 11:55:51 alarm 2: 2017-06-15 11:55:47	No

2017 Week 25: 8 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
05	MBS	2017-06-21 11:58:02	alarm 1: 2017-06-21 11:58:02	alarm 1: 2017-06-21 11:58:41	alarm 1: 2017-06-21 11:58:41	No
05	MBS	2017-06-23 03:13:18	alarm 1: 2017-06-23 03:13:18	alarm 1: 2017-06-23 03:35:30	alarm 1: 2017-06-23 04:42:00	Yes
05	MBS	2017-06-23 23:46:59	alarm 1: 2017-06-23 23:46:59 alarm 2: 2017-06-24 00:07:30	alarm 1: 2017-06-23 23:55:02 alarm 2: 2017-06-24 00:14:42	alarm 1: 2017-06-23 23:55:02 alarm 2: 2017-06-24 00:14:42	No
05	MBS	2017-06-24 06:08:12	alarm 1: 2017-06-24 06:08:12	alarm 1: 2017-06-24 06:17:33	alarm 1: 2017-06-24 07:43:00	Yes
05	MBS	2017-06-24 20:53:44	alarm 1: 2017-06-24 20:53:44 alarm 2: 2017-06-24 21:01:14	alarm 1: 2017-06-24 21:02:37 alarm 2: 2017-06-24 21:03:50	alarm 1: 2017-06-24 21:02:37 alarm 2: 2017-06-24 21:03:50	No
78	MBS	2017-06-19 09:14:39	alarm 1: 2017-06-19 09:14:39 alarm 2: 2017-06-19 09:15:08 alarm 3: 2017-06-19 09:15:08 alarm 4: 2017-06-19 09:19:39 alarm 5: 2017-06-19 09:19:39 alarm 6: 2017-06-19 09:19:39	alarm 1: 2017-06-19 09:23:18 alarm 2: 2017-06-19 09:23:20 alarm 3: 2017-06-19 09:23:21 alarm 4: 2017-06-19 09:23:24 alarm 5: 2017-06-19 09:23:26 alarm 6: 2017-06-19 09:23:27	alarm 1: 2017-06-19 09:23:18 alarm 2: 2017-06-19 09:23:20 alarm 3: 2017-06-19 09:23:21 alarm 4: 2017-06-19 09:23:24 alarm 5: 2017-06-19 09:23:26 alarm 6: 2017-06-19 09:23:27	No
78	MBS	2017-06-19 13:13:20	alarm 1: 2017-06-19 13:13:20 alarm 2: 2017-06-19 13:13:20	alarm 1: 2017-06-19 13:22:08 alarm 2: 2017-06-19 13:22:05	alarm 1: 2017-06-19 13:22:08 alarm 2: 2017-06-19 13:22:05	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
78	MBS	2017-06-23 10:44:42	alarm 1: 2017-06-23 10:44:42 alarm 2: 2017-06-23 10:44:42	alarm 1: 2017-06-23 10:49:55 alarm 2: 2017-06-23 10:49:51	alarm 1: 2017-06-23 10:49:55 alarm 2: 2017-06-23 10:49:51	No

2017 Week 26: 5 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-06-26 06:02:59	alarm 1: 2017-06-26 06:02:59 alarm 2: 2017-06-26 06:05:59 alarm 3: 2017-06-26 06:10:58	alarm 1: 2017-06-26 06:11:30 alarm 2: 2017-06-26 06:11:34 alarm 3: 2017-06-26 06:20:42	alarm 1: 2017-06-26 06:30:00 alarm 2: 2017-06-26 06:30:00 alarm 3: 2017-06-26 06:30:00	Yes
01	MBS	2017-06-26 10:42:03	alarm 1: 2017-06-26 10:42:03 alarm 2: 2017-06-26 10:42:33 alarm 3: 2017-06-26 10:46:03	alarm 1: 2017-06-26 10:48:29 alarm 2: 2017-06-26 10:48:26 alarm 3: 2017-06-26 10:48:20	alarm 1: 2017-06-26 10:53:00 alarm 2: 2017-06-26 10:53:00 alarm 3: 2017-06-26 10:53:00	Yes
05	MBS	2017-06-27 08:18:22	alarm 1: 2017-06-27 08:18:22 alarm 2: 2017-06-27 08:20:51	alarm 1: 2017-06-27 08:26:18 alarm 2: 2017-06-27 08:26:20	alarm 1: 2017-06-27 08:26:18 alarm 2: 2017-06-27 08:26:20	No
10	MBS	2017-06-28 14:15:22	alarm 1: 2017-06-28 14:15:22	alarm 1: 2017-06-28 14:19:37	alarm 1: 2017-06-28 14:19:37	No
78	MBS	2017-06-28 11:45:18	alarm 1: 2017-06-28 11:45:18	alarm 1: 2017-06-28 11:50:41	alarm 1: 2017-06-28 11:50:41	No

2017 Week 27: 6 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-07-06 21:44:04	alarm 1: 2017-07-06 21:44:04	alarm 1: 2017-07-06 21:57:41	alarm 1: 2017-07-06 22:04:00	Yes
01	MBS	2017-07-08 19:54:33	alarm 1: 2017-07-08 19:54:33	alarm 1: 2017-07-08 19:58:22	alarm 1: 2017-07-08 19:58:22	No
05	MBS	2017-07-06 02:02:08	alarm 1: 2017-07-06 02:02:08	alarm 1: 2017-07-06 02:11:23	alarm 1: 2017-07-06 03:26:00	Yes
05	MBS	2017-07-06 06:59:22	alarm 1: 2017-07-06 06:59:22 alarm 2: 2017-07-06 06:59:22	alarm 1: 2017-07-06 07:08:34 alarm 2: 2017-07-06 07:08:36	alarm 1: 2017-07-06 07:08:34 alarm 2: 2017-07-06 07:08:36	No
05	MBS	2017-07-06 14:56:36	alarm 1: 2017-07-06 14:56:36	alarm 1: 2017-07-06 15:06:17	alarm 1: 2017-07-06 16:35:00	Yes
05	MBS	2017-07-09 01:32:45	alarm 1: 2017-07-09 01:32:45 alarm 2: 2017-07-09 03:53:27	alarm 1: 2017-07-09 01:37:27 alarm 2: 2017-07-09 03:55:46	alarm 1: 2017-07-09 01:37:27 alarm 2: 2017-07-09 03:55:46	No

2017 Week 28: 10 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-07-10 13:06:09	alarm 1: 2017-07-10 13:06:09	alarm 1: 2017-07-10 13:10:11	alarm 1: 2017-07-10 13:10:11	No
01	MBS	2017-07-12 11:11:31	alarm 1: 2017-07-12 11:11:31	alarm 1: 2017-07-12 11:17:41	alarm 1: 2017-07-12 11:17:41	No
01	MBS	2017-07-14 17:47:32	alarm 1: 2017-07-14 17:47:32 alarm 2: 2017-07-14 17:48:03	alarm 1: 2017-07-14 17:51:16 alarm 2: 2017-07-14 17:51:14	alarm 1: 2017-07-14 17:51:16 alarm 2: 2017-07-14 17:51:14	No
05	MBS	2017-07-10 01:40:23	alarm 1: 2017-07-10 01:40:23	alarm 1: 2017-07-10 01:43:12	alarm 1: 2017-07-10 01:43:12	No
05	MBS	2017-07-12 03:23:01	alarm 1: 2017-07-12 03:23:01	alarm 1: 2017-07-12 03:28:58	alarm 1: 2017-07-12 03:28:58	No
05	MBS	2017-07-12 06:15:05	alarm 1: 2017-07-12 06:15:05	alarm 1: 2017-07-12 06:18:49	alarm 1: 2017-07-12 06:18:49	No
05	MBS	2017-07-12 15:36:41	alarm 1: 2017-07-12 15:36:41	alarm 1: 2017-07-12 15:40:34	alarm 1: 2017-07-12 15:40:34	No
05	MBS	2017-07-13 12:17:45	alarm 1: 2017-07-13 12:17:45	alarm 1: 2017-07-13 12:26:16	alarm 1: 2017-07-13 12:26:16	No
05	MBS	2017-07-16 10:57:19	alarm 1: 2017-07-16 10:57:19	alarm 1: 2017-07-16 10:58:48	alarm 1: 2017-07-16 10:58:48	No
14	MBS	2017-07-13 12:15:50	alarm 1: 2017-07-13 12:15:50	alarm 1: 2017-07-13 12:45:14	alarm 1: 2017-07-13 12:45:00	Yes

2017 Week 29: 18 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-07-23 22:27:11	alarm 1: 2017-07-23 22:27:11	alarm 1: 2017-07-23 22:30:43	alarm 1: 2017-07-23 22:30:43	No
02	MBS	2017-07-22 18:54:02	alarm 1: 2017-07-22 18:54:02 alarm 2: 2017-07-22 18:54:02	alarm 1: 2017-07-22 18:59:22 alarm 2: 2017-07-22 18:59:20	alarm 1: 2017-07-22 18:59:22 alarm 2: 2017-07-22 18:59:20	No
03	MBS	2017-07-19 01:18:11	alarm 1: 2017-07-19 01:18:11 alarm 2: 2017-07-19 01:19:11	alarm 1: 2017-07-19 01:21:31 alarm 2: 2017-07-19 01:21:26	alarm 1: 2017-07-19 01:21:31 alarm 2: 2017-07-19 01:21:26	No
03	MBS	2017-07-20 07:15:28	alarm 1: 2017-07-20 07:15:28	alarm 1: 2017-07-20 07:23:50	alarm 1: 2017-07-20 07:23:50	No
03	MBS	2017-07-21 12:13:13	alarm 1: 2017-07-21 12:13:13 alarm 2: 2017-07-21 12:14:13	alarm 1: 2017-07-21 12:18:22 alarm 2: 2017-07-21 12:18:19	alarm 1: 2017-07-21 12:18:22 alarm 2: 2017-07-21 12:18:19	No
05	MBS	2017-07-18 07:12:57	alarm 1: 2017-07-18 07:12:57	alarm 1: 2017-07-18 08:16:07	alarm 1: 2017-07-18 09:29:00	Yes
05	MBS	2017-07-19 05:32:46	alarm 1: 2017-07-19 05:32:46	alarm 1: 2017-07-19 06:06:28	alarm 1: 2017-07-19 05:57:00	Yes
05	MBS	2017-07-19 17:34:11	alarm 1: 2017-07-19 17:34:11 alarm 2: 2017-07-19 17:35:10 alarm 3: 2017-07-19 17:35:10	alarm 1: 2017-07-19 17:41:28 alarm 2: 2017-07-19 17:41:29 alarm 3: 2017-07-19 17:41:31	alarm 1: 2017-07-19 17:41:28 alarm 2: 2017-07-19 17:41:29 alarm 3: 2017-07-19 17:41:31	No
05	MBS	2017-07-20 08:27:37	alarm 1: 2017-07-20 08:27:37 alarm 2: 2017-07-20 08:29:05 alarm 3: 2017-07-20 08:31:06	alarm 1: 2017-07-20 08:34:55 alarm 2: 2017-07-20 08:34:56 alarm 3: 2017-07-20 08:34:58	alarm 1: 2017-07-20 08:34:55 alarm 2: 2017-07-20 08:34:56 alarm 3: 2017-07-20 08:34:58	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
06A	MBS	2017-07-20 08:34:04	alarm 1: 2017-07-20 08:34:04 alarm 2: 2017-07-20 08:35:02	alarm 1: 2017-07-20 08:39:33 alarm 2: 2017-07-20 08:39:35	alarm 1: 2017-07-20 08:39:33 alarm 2: 2017-07-20 08:39:35	No
06A	MBS	2017-07-20 22:16:01	alarm 1: 2017-07-20 22:16:01 alarm 2: 2017-07-20 22:16:01 alarm 3: 2017-07-20 22:18:32 alarm 4: 2017-07-20 22:24:31 alarm 5: 2017-07-20 22:25:31	alarm 1: 2017-07-20 22:26:13 alarm 2: 2017-07-20 22:26:16 alarm 3: 2017-07-20 22:26:17 alarm 4: 2017-07-20 22:27:43 alarm 5: 2017-07-20 22:27:45	alarm 1: 2017-07-21 12:24:00 alarm 2: 2017-07-21 12:24:00 alarm 3: 2017-07-21 12:24:00 alarm 4: 2017-07-21 12:24:00 alarm 5: 2017-07-21 12:24:00	Yes
06A	MBS	2017-07-21 12:56:35	alarm 1: 2017-07-21 12:56:35 alarm 2: 2017-07-21 12:56:35 alarm 3: 2017-07-21 12:56:35 alarm 4: 2017-07-21 12:57:35	alarm 1: 2017-07-21 13:10:29 alarm 2: 2017-07-21 13:10:22 alarm 3: 2017-07-21 13:10:20 alarm 4: 2017-07-21 13:10:17	alarm 1: 2017-07-21 13:22:00 alarm 2: 2017-07-21 13:22:00 alarm 3: 2017-07-21 13:22:00 alarm 4: 2017-07-21 13:22:00	Yes
14	MBS	2017-07-21 15:56:06	alarm 1: 2017-07-21 15:56:06 alarm 2: 2017-07-21 15:56:36	alarm 1: 2017-07-21 16:03:38 alarm 2: 2017-07-21 16:03:36	alarm 1: 2017-07-21 16:20:00 alarm 2: 2017-07-21 16:20:00	Yes
61	MBS	2017-07-19 18:45:12	alarm 1: 2017-07-19 18:45:12 alarm 2: 2017-07-19 18:45:12 alarm 3: 2017-07-19 19:03:12	alarm 1: 2017-07-19 18:54:51 alarm 2: 2017-07-19 18:54:52 alarm 3: 2017-07-19 19:07:25	alarm 1: 2017-07-19 18:54:51 alarm 2: 2017-07-19 18:54:52 alarm 3: 2017-07-19 19:07:25	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
61	MBS	2017-07-20 10:01:51	alarm 1: 2017-07-20 10:01:51 alarm 2: 2017-07-20 10:01:51 alarm 3: 2017-07-20 10:01:51	alarm 1: 2017-07-20 10:05:18 alarm 2: 2017-07-20 10:05:15 alarm 3: 2017-07-20 10:05:14	alarm 1: 2017-07-20 10:05:18 alarm 2: 2017-07-20 10:05:15 alarm 3: 2017-07-20 10:05:14	No
61	MBS	2017-07-21 20:29:13	alarm 1: 2017-07-21 20:29:13	alarm 1: 2017-07-21 20:57:30	alarm 1: 2017-07-21 21:10:00	Yes
67	MBS	2017-07-21 21:51:45	alarm 1: 2017-07-21 21:51:45 alarm 2: 2017-07-21 21:51:45	alarm 1: 2017-07-21 21:54:29 alarm 2: 2017-07-21 21:54:28	alarm 1: 2017-07-21 21:54:29 alarm 2: 2017-07-21 21:54:28	No
78	MBS	2017-07-23 18:34:06	alarm 1: 2017-07-23 18:34:06 alarm 2: 2017-07-23 18:34:06	alarm 1: 2017-07-23 18:40:14 alarm 2: 2017-07-23 18:39:21	alarm 1: 2017-07-23 18:40:14 alarm 2: 2017-07-23 18:39:21	No

2017 Week 30: 5 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-07-28 22:06:53	alarm 1: 2017-07-28 22:06:53	alarm 1: 2017-07-28 22:29:23	alarm 1: 2017-07-28 22:36:00	Yes
01	MBS	2017-07-29 20:36:04	alarm 1: 2017-07-29 20:36:04	alarm 1: 2017-07-29 20:38:51	alarm 1: 2017-07-29 20:38:51	No
05	MBS	2017-07-25 08:22:25	alarm 1: 2017-07-25 08:22:25	alarm 1: 2017-07-25 08:26:57	alarm 1: 2017-07-25 08:26:57	No
10	MBS	2017-07-30 11:58:18	alarm 1: 2017-07-30 11:58:18 alarm 2: 2017-07-30 11:58:46	alarm 1: 2017-07-30 12:01:54 alarm 2: 2017-07-30 12:01:51	alarm 1: 2017-07-30 12:01:54 alarm 2: 2017-07-30 12:01:51	No
78	MBS	2017-07-24 00:26:16	alarm 1: 2017-07-24 00:26:16 alarm 2: 2017-07-24 00:26:16	alarm 1: 2017-07-24 00:29:33 alarm 2: 2017-07-24 00:29:30	alarm 1: 2017-07-24 00:29:33 alarm 2: 2017-07-24 00:29:30	No

2017 Week 31: 13 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-08-01 12:03:11	alarm 1: 2017-08-01 12:03:11	alarm 1: 2017-08-01 12:42:26	alarm 1: 2017-08-01 12:45:00	Yes
02	MBS	2017-07-31 06:44:16	alarm 1: 2017-07-31 06:44:16 alarm 2: 2017-07-31 06:44:45	alarm 1: 2017-07-31 06:48:19 alarm 2: 2017-07-31 06:48:20	alarm 1: 2017-07-31 06:48:19 alarm 2: 2017-07-31 06:48:20	No
02	MBS	2017-08-03 10:26:30	alarm 1: 2017-08-03 10:26:30 alarm 2: 2017-08-03 10:26:30 alarm 3: 2017-08-03 10:26:30 alarm 4: 2017-08-03 10:27:00 alarm 5: 2017-08-03 10:27:00 alarm 6: 2017-08-03 10:32:30	alarm 1: 2017-08-03 10:29:46 alarm 2: 2017-08-03 10:29:43 alarm 3: 2017-08-03 10:29:41 alarm 4: 2017-08-03 10:29:34 alarm 5: 2017-08-03 10:29:28 alarm 6: 2017-08-03 10:32:51	alarm 1: 2017-08-03 10:29:46 alarm 2: 2017-08-03 10:29:43 alarm 3: 2017-08-03 10:29:41 alarm 4: 2017-08-03 10:29:34 alarm 5: 2017-08-03 10:29:28 alarm 6: 2017-08-03 10:32:51	No
03	MBS	2017-08-06 12:56:23	alarm 1: 2017-08-06 12:56:23	alarm 1: 2017-08-06 13:03:22	alarm 1: 2017-08-06 13:03:22	No
05	MBS	2017-07-31 06:22:53	alarm 1: 2017-07-31 06:22:53 alarm 2: 2017-07-31 06:23:53	alarm 1: 2017-07-31 06:28:36 alarm 2: 2017-07-31 06:28:38	alarm 1: 2017-07-31 06:28:36 alarm 2: 2017-07-31 06:28:38	No
05	MBS	2017-07-31 12:38:15	alarm 1: 2017-07-31 12:38:15 alarm 2: 2017-07-31 12:39:15	alarm 1: 2017-07-31 12:46:49 alarm 2: 2017-07-31 12:46:46	alarm 1: 2017-07-31 12:46:49 alarm 2: 2017-07-31 12:46:46	No
05	MBS	2017-08-01 04:49:17	alarm 1: 2017-08-01 04:49:17	alarm 1: 2017-08-01 04:54:17	alarm 1: 2017-08-01 04:54:17	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
05	MBS	2017-08-04 18:54:10	alarm 1: 2017-08-04 18:54:10 alarm 2: 2017-08-04 18:54:40 alarm 3: 2017-08-04 18:54:40	alarm 1: 2017-08-04 18:57:30 alarm 2: 2017-08-04 18:57:26 alarm 3: 2017-08-04 18:57:28	alarm 1: 2017-08-04 18:57:30 alarm 2: 2017-08-04 18:57:26 alarm 3: 2017-08-04 18:57:28	No
67	MBS	2017-08-06 09:30:07	alarm 1: 2017-08-06 09:30:07 alarm 2: 2017-08-06 09:30:38 alarm 3: 2017-08-06 09:31:08	alarm 1: 2017-08-06 09:52:05 alarm 2: 2017-08-06 09:52:07 alarm 3: 2017-08-06 09:52:10	alarm 1: 2017-08-06 17:20:00 alarm 2: 2017-08-06 17:20:00 alarm 3: 2017-08-06 17:20:00	Yes
67	MBS	2017-08-06 18:24:35	alarm 1: 2017-08-06 18:24:35 alarm 2: 2017-08-06 18:25:05 alarm 3: 2017-08-06 18:25:36	alarm 1: 2017-08-06 18:33:34 alarm 2: 2017-08-06 18:33:33 alarm 3: 2017-08-06 18:33:30	alarm 1: 2017-08-06 18:33:34 alarm 2: 2017-08-06 18:33:33 alarm 3: 2017-08-06 18:33:30	No
78	MBS	2017-08-01 12:01:32	alarm 1: 2017-08-01 12:01:32	alarm 1: 2017-08-01 12:09:25	alarm 1: 2017-08-01 12:09:25	No
78	MBS	2017-08-01 23:18:08	alarm 1: 2017-08-01 23:18:08 alarm 2: 2017-08-01 23:18:08 alarm 3: 2017-08-01 23:18:08	alarm 1: 2017-08-01 23:25:36 alarm 2: 2017-08-01 23:25:38 alarm 3: 2017-08-01 23:25:34	alarm 1: 2017-08-01 23:25:36 alarm 2: 2017-08-01 23:25:38 alarm 3: 2017-08-01 23:25:34	No
78	MBS	2017-08-03 22:37:00	alarm 1: 2017-08-03 22:37:00 alarm 2: 2017-08-03 22:37:30	alarm 1: 2017-08-03 22:39:00 alarm 2: 2017-08-03 22:49:42	alarm 1: 2017-08-03 23:20:00 alarm 2: 2017-08-03 23:20:00	Yes

2017 Week 32: 2 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-08-11 20:38:22	alarm 1: 2017-08-11 20:38:22	alarm 1: 2017-08-11 20:44:42	alarm 1: 2017-08-11 20:44:42	No
78	MBS	2017-08-12 10:25:31	alarm 1: 2017-08-12 10:25:31	alarm 1: 2017-08-12 10:31:52	alarm 1: 2017-08-12 10:31:52	No

2017 Week 33: 10 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
04	MBS	2017-08-17 00:50:03	alarm 1: 2017-08-17 00:50:03 alarm 2: 2017-08-17 00:50:03 alarm 3: 2017-08-17 00:52:33 alarm 4: 2017-08-17 00:53:32	alarm 1: 2017-08-17 00:59:02 alarm 2: 2017-08-17 00:59:00 alarm 3: 2017-08-17 00:59:10 alarm 4: 2017-08-17 00:59:05	alarm 1: 2017-08-17 00:59:02 alarm 2: 2017-08-17 00:59:00 alarm 3: 2017-08-17 00:59:10 alarm 4: 2017-08-17 00:59:05	No
05	MBS	2017-08-15 23:02:51	alarm 1: 2017-08-15 23:02:51	alarm 1: 2017-08-15 23:06:12	alarm 1: 2017-08-15 23:06:12	No
05	MBS	2017-08-16 06:14:00	alarm 1: 2017-08-16 06:14:00	alarm 1: 2017-08-16 06:19:51	alarm 1: 2017-08-16 06:19:51	No
05	MBS	2017-08-16 10:08:09	alarm 1: 2017-08-16 10:08:09 alarm 2: 2017-08-16 13:45:54	alarm 1: 2017-08-16 10:15:21 alarm 2: 2017-08-16 13:54:01	alarm 1: 2017-08-16 10:15:21 alarm 2: 2017-08-16 13:54:01	No
05	MBS	2017-08-17 08:38:35	alarm 1: 2017-08-17 08:38:35 alarm 2: 2017-08-17 08:38:35 alarm 3: 2017-08-17 08:40:35	alarm 1: 2017-08-17 08:46:38 alarm 2: 2017-08-17 08:46:40 alarm 3: 2017-08-17 08:46:41	alarm 1: 2017-08-17 10:33:00 alarm 2: 2017-08-17 10:33:00 alarm 3: 2017-08-17 10:33:00	Yes
05	MBS	2017-08-17 16:02:25	alarm 1: 2017-08-17 16:02:25 alarm 2: 2017-08-17 16:04:28	alarm 1: 2017-08-17 16:11:03 alarm 2: 2017-08-17 16:11:07	alarm 1: 2017-08-17 16:11:03 alarm 2: 2017-08-17 16:11:07	No
05	MBS	2017-08-18 12:43:49	alarm 1: 2017-08-18 12:43:49 alarm 2: 2017-08-18 12:49:19	alarm 1: 2017-08-18 12:52:30 alarm 2: 2017-08-18 12:52:33	alarm 1: 2017-08-18 12:52:30 alarm 2: 2017-08-18 12:52:33	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
14	MBS	2017-08-15 07:13:59	alarm 1: 2017-08-15 07:13:59 alarm 2: 2017-08-15 07:13:59 alarm 3: 2017-08-15 07:16:33 alarm 4: 2017-08-15 07:16:33	alarm 1: 2017-08-15 07:20:05 alarm 2: 2017-08-15 07:20:06 alarm 3: 2017-08-15 07:20:07 alarm 4: 2017-08-15 07:20:08	alarm 1: 2017-08-15 07:20:05 alarm 2: 2017-08-15 07:20:06 alarm 3: 2017-08-15 07:20:07 alarm 4: 2017-08-15 07:20:08	No
14	MBS	2017-08-15 08:57:53	alarm 1: 2017-08-15 08:57:53	alarm 1: 2017-08-15 09:02:21	alarm 1: 2017-08-15 09:02:21	No
67	MBS	2017-08-15 03:56:04	alarm 1: 2017-08-15 03:56:04	alarm 1: 2017-08-15 03:59:12	alarm 1: 2017-08-15 03:59:12	No

2017 Week 34: 11 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
03	MBS	2017-08-21 09:34:45	alarm 1: 2017-08-21 09:34:45	alarm 1: 2017-08-21 09:37:27	alarm 1: 2017-08-21 09:37:27	No
05	MBS	2017-08-21 19:47:10	alarm 1: 2017-08-21 19:47:10	alarm 1: 2017-08-21 19:56:33	alarm 1: 2017-08-21 19:56:33	No
05	MBS	2017-08-22 02:49:09	alarm 1: 2017-08-22 02:49:09 alarm 2: 2017-08-22 02:49:40	alarm 1: 2017-08-22 02:54:16 alarm 2: 2017-08-22 02:54:14	alarm 1: 2017-08-22 02:54:16 alarm 2: 2017-08-22 02:54:14	No
05	MBS	2017-08-22 20:02:00	alarm 1: 2017-08-22 20:02:00 alarm 2: 2017-08-22 20:04:30 alarm 3: 2017-08-22 20:06:59 alarm 4: 2017-08-22 20:09:00	alarm 1: 2017-08-22 20:10:59 alarm 2: 2017-08-22 20:11:00 alarm 3: 2017-08-22 20:11:02 alarm 4: 2017-08-22 20:11:04	alarm 1: 2017-08-22 20:10:59 alarm 2: 2017-08-22 20:11:00 alarm 3: 2017-08-22 20:11:02 alarm 4: 2017-08-22 20:11:04	No
05	MBS	2017-08-23 05:20:44	alarm 1: 2017-08-23 05:20:44	alarm 1: 2017-08-23 05:29:56	alarm 1: 2017-08-23 05:29:56	No
05	MBS	2017-08-23 06:37:49	alarm 1: 2017-08-23 06:37:49 alarm 2: 2017-08-23 06:40:19 alarm 3: 2017-08-23 06:41:20	alarm 1: 2017-08-23 06:43:19 alarm 2: 2017-08-23 06:43:22 alarm 3: 2017-08-23 06:43:25	alarm 1: 2017-08-23 06:43:19 alarm 2: 2017-08-23 06:43:22 alarm 3: 2017-08-23 06:43:25	No
05	MBS	2017-08-24 04:19:29	alarm 1: 2017-08-24 04:19:29	alarm 1: 2017-08-24 04:23:56	alarm 1: 2017-08-24 04:23:56	No
05	MBS	2017-08-24 10:50:07	alarm 1: 2017-08-24 10:50:07	alarm 1: 2017-08-24 10:54:52	alarm 1: 2017-08-24 10:54:52	No
05	MBS	2017-08-24 11:08:07	alarm 1: 2017-08-24 11:08:07	alarm 1: 2017-08-24 11:10:25	alarm 1: 2017-08-24 11:10:25	No
05	MBS	2017-08-27 15:44:27	alarm 1: 2017-08-27 15:44:27	alarm 1: 2017-08-27 15:49:29	alarm 1: 2017-08-27 15:49:29	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
78	MBS	2017-08-21 02:38:31	alarm 1: 2017-08-21 02:38:31 alarm 2: 2017-08-21 02:38:31 alarm 3: 2017-08-21 02:43:33	alarm 1: 2017-08-21 02:45:19 alarm 2: 2017-08-21 02:45:21 alarm 3: 2017-08-21 02:45:22	alarm 1: 2017-08-21 02:45:19 alarm 2: 2017-08-21 02:45:21 alarm 3: 2017-08-21 02:45:22	No

2017 Week 35: 10 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
03	MBS	2017-08-28 03:02:26	alarm 1: 2017-08-28 03:02:26 alarm 2: 2017-08-28 03:02:26	alarm 1: 2017-08-28 03:10:19 alarm 2: 2017-08-28 03:10:16	alarm 1: 2017-08-28 03:10:19 alarm 2: 2017-08-28 03:10:16	No
05	MBS	2017-08-29 12:41:17	alarm 1: 2017-08-29 12:41:17 alarm 2: 2017-08-29 12:41:47 alarm 3: 2017-08-29 12:42:47 alarm 4: 2017-08-29 12:45:17 alarm 5: 2017-08-29 12:59:20	alarm 1: 2017-08-29 12:48:01 alarm 2: 2017-08-29 12:48:03 alarm 3: 2017-08-29 12:48:07 alarm 4: 2017-08-29 12:48:12 alarm 5: 2017-08-29 13:01:13	alarm 1: 2017-08-29 12:48:01 alarm 2: 2017-08-29 12:48:03 alarm 3: 2017-08-29 12:48:07 alarm 4: 2017-08-29 12:48:12 alarm 5: 2017-08-29 13:01:13	No
05	MBS	2017-08-30 04:43:19	alarm 1: 2017-08-30 04:43:19 alarm 2: 2017-08-30 04:44:19 alarm 3: 2017-08-30 04:46:49	alarm 1: 2017-08-30 04:51:57 alarm 2: 2017-08-30 04:51:59 alarm 3: 2017-08-30 04:52:01	alarm 1: 2017-08-30 04:51:57 alarm 2: 2017-08-30 04:51:59 alarm 3: 2017-08-30 04:52:01	No
05	MBS	2017-08-31 15:42:45	alarm 1: 2017-08-31 15:42:45	alarm 1: 2017-08-31 15:49:42	alarm 1: 2017-08-31 15:49:42	No
05	AVB, MBS	2017-08-31 22:12:23	alarm 1: 2017-08-31 22:12:23 alarm 2: 2017-08-31 22:12:23 alarm 3: 2017-08-31 22:37:24	alarm 1: 2017-08-31 22:29:16 alarm 2: 2017-08-31 22:29:18 alarm 3: 2017-08-31 22:44:29	alarm 1: 2017-08-31 22:31:00 alarm 2: 2017-08-31 22:31:00 alarm 3: 2017-08-31 22:31:00	Yes
05	MBS	2017-09-01 11:13:44	alarm 1: 2017-09-01 11:13:44	alarm 1: 2017-09-01 11:23:01	alarm 1: 2017-09-01 11:23:01	No
05	MBS	2017-09-02 05:47:35	alarm 1: 2017-09-02 05:47:35	alarm 1: 2017-09-02 05:53:10	alarm 1: 2017-09-02 05:53:10	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
06A	MBS	2017-08-29 23:46:52	alarm 1: 2017-08-29 23:46:52 alarm 2: 2017-08-29 23:47:23	alarm 1: 2017-08-29 23:52:27 alarm 2: 2017-08-29 23:52:29	alarm 1: 2017-08-29 23:52:27 alarm 2: 2017-08-29 23:52:29	No
14	MBS	2017-09-01 07:46:55	alarm 1: 2017-09-01 07:46:55	alarm 1: 2017-09-01 07:52:31	alarm 1: 2017-09-01 07:52:31	No
78	MBS	2017-08-28 15:41:12	alarm 1: 2017-08-28 15:41:12	alarm 1: 2017-08-28 15:47:30	alarm 1: 2017-08-28 15:47:30	No

2017 Week 36: 12 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	MBS	2017-09-07 14:11:21	alarm 1: 2017-09-07 14:11:21 alarm 2: 2017-09-07 14:11:21 alarm 3: 2017-09-07 14:11:21	alarm 1: 2017-09-07 14:14:40 alarm 2: 2017-09-07 14:14:41 alarm 3: 2017-09-07 14:14:37	alarm 1: 2017-09-07 14:14:40 alarm 2: 2017-09-07 14:14:41 alarm 3: 2017-09-07 14:14:37	No
03	MBS	2017-09-08 08:52:06	alarm 1: 2017-09-08 08:52:06 alarm 2: 2017-09-08 08:55:36	alarm 1: 2017-09-08 09:01:17 alarm 2: 2017-09-08 09:01:19	alarm 1: 2017-09-08 09:01:17 alarm 2: 2017-09-08 09:01:19	No
05	MBS	2017-09-04 09:30:45	alarm 1: 2017-09-04 09:30:45	alarm 1: 2017-09-04 09:37:16	alarm 1: 2017-09-04 09:37:16	No
05	MBS	2017-09-04 18:43:39	alarm 1: 2017-09-04 18:43:39 alarm 2: 2017-09-04 18:44:09 alarm 3: 2017-09-04 18:44:09	alarm 1: 2017-09-04 18:48:44 alarm 2: 2017-09-04 18:48:42 alarm 3: 2017-09-04 18:48:40	alarm 1: 2017-09-04 18:48:44 alarm 2: 2017-09-04 18:48:42 alarm 3: 2017-09-04 18:48:40	No
05	MBS	2017-09-09 08:26:26	alarm 1: 2017-09-09 08:26:26 alarm 2: 2017-09-09 08:27:56	alarm 1: 2017-09-09 08:33:53 alarm 2: 2017-09-09 08:33:54	alarm 1: 2017-09-09 08:33:53 alarm 2: 2017-09-09 08:33:54	No
05	MBS	2017-09-09 22:15:51	alarm 1: 2017-09-09 22:15:51	alarm 1: 2017-09-09 22:19:24	alarm 1: 2017-09-09 22:19:24	No
05	MBS	2017-09-10 02:14:30	alarm 1: 2017-09-10 02:14:30 alarm 2: 2017-09-10 02:15:01	alarm 1: 2017-09-10 02:20:57 alarm 2: 2017-09-10 02:20:59	alarm 1: 2017-09-10 02:20:57 alarm 2: 2017-09-10 02:20:59	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
14	MBS	2017-09-05 01:07:22	alarm 1: 2017-09-05 01:07:22 alarm 2: 2017-09-05 01:07:22 alarm 3: 2017-09-05 01:08:22	alarm 1: 2017-09-05 01:15:43 alarm 2: 2017-09-05 01:15:44 alarm 3: 2017-09-05 01:15:46	alarm 1: 2017-09-05 01:15:43 alarm 2: 2017-09-05 01:15:44 alarm 3: 2017-09-05 01:15:46	No
14	MBS	2017-09-07 07:15:55	alarm 1: 2017-09-07 07:15:55 alarm 2: 2017-09-07 07:15:55	alarm 1: 2017-09-07 08:53:34 alarm 2: 2017-09-07 08:53:33	alarm 1: 2017-09-07 09:00:00 alarm 2: 2017-09-07 09:00:00	Yes
61	MBS	2017-09-04 15:57:11	alarm 1: 2017-09-04 15:57:11	alarm 1: 2017-09-04 16:00:44	alarm 1: 2017-09-04 16:00:44	No
78	MBS	2017-09-06 04:21:59	alarm 1: 2017-09-06 04:21:59	alarm 1: 2017-09-06 04:30:21	alarm 1: 2017-09-06 09:36:00	Yes
78	MBS	2017-09-06 10:12:09	alarm 1: 2017-09-06 10:12:09	alarm 1: 2017-09-06 10:17:15	alarm 1: 2017-09-06 11:48:00	Yes

2017 Week 37: 15 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	MBS	2017-09-15 23:16:27	alarm 1: 2017-09-15 23:16:27 alarm 2: 2017-09-15 23:16:57	alarm 1: 2017-09-15 23:19:28 alarm 2: 2017-09-15 23:19:30	alarm 1: 2017-09-15 23:19:28 alarm 2: 2017-09-15 23:19:30	No
02	MBS	2017-09-16 03:17:14	alarm 1: 2017-09-16 03:17:14 alarm 2: 2017-09-16 03:17:45	alarm 1: 2017-09-16 03:22:56 alarm 2: 2017-09-16 03:22:58	alarm 1: 2017-09-16 03:22:56 alarm 2: 2017-09-16 03:22:58	No
02	MBS	2017-09-16 14:41:25	alarm 1: 2017-09-16 14:41:25 alarm 2: 2017-09-16 14:58:56	alarm 1: 2017-09-16 15:08:54 alarm 2: 2017-09-16 15:08:55	alarm 1: 2017-09-16 16:21:00 alarm 2: 2017-09-16 16:21:00	Yes
05	MBS	2017-09-11 06:14:38	alarm 1: 2017-09-11 06:14:38	alarm 1: 2017-09-11 06:18:39	alarm 1: 2017-09-11 06:18:39	No
05	MBS	2017-09-11 23:02:10	alarm 1: 2017-09-11 23:02:10	alarm 1: 2017-09-11 23:08:30	alarm 1: 2017-09-11 23:08:30	No
05	MBS	2017-09-12 03:48:25	alarm 1: 2017-09-12 03:48:25	alarm 1: 2017-09-12 03:51:16	alarm 1: 2017-09-12 03:51:16	No
05	MBS	2017-09-13 13:18:37	alarm 1: 2017-09-13 13:18:37 alarm 2: 2017-09-13 13:19:07	alarm 1: 2017-09-13 13:24:04 alarm 2: 2017-09-13 13:24:06	alarm 1: 2017-09-13 13:24:04 alarm 2: 2017-09-13 13:24:06	No
05	MBS	2017-09-15 00:19:28	alarm 1: 2017-09-15 00:19:28 alarm 2: 2017-09-15 00:20:28	alarm 1: 2017-09-15 00:26:34 alarm 2: 2017-09-15 00:26:35	alarm 1: 2017-09-15 00:26:34 alarm 2: 2017-09-15 00:26:35	No
05	MBS	2017-09-15 04:53:04	alarm 1: 2017-09-15 04:53:04	alarm 1: 2017-09-15 05:01:06	alarm 1: 2017-09-15 05:01:06	No
05	MBS	2017-09-16 03:49:05	alarm 1: 2017-09-16 03:49:05	alarm 1: 2017-09-16 03:53:25	alarm 1: 2017-09-16 03:53:25	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
14	MBS	2017-09-11 17:17:22	alarm 1: 2017-09-11 17:17:22	alarm 1: 2017-09-11 17:21:33	alarm 1: 2017-09-11 19:46:00	Yes
14	MBS	2017-09-12 03:00:51	alarm 1: 2017-09-12 03:00:51	alarm 1: 2017-09-12 03:16:41	alarm 1: 2017-09-12 03:12:00	Yes
14	MBS	2017-09-12 03:29:54	alarm 1: 2017-09-12 03:29:54	alarm 1: 2017-09-12 03:32:57	alarm 1: 2017-09-12 03:32:57	No
14	MBS	2017-09-12 03:37:24	alarm 1: 2017-09-12 03:37:24	alarm 1: 2017-09-12 03:41:19	alarm 1: 2017-09-12 03:41:19	No
67	MBS	2017-09-16 18:39:32	alarm 1: 2017-09-16 18:39:32 alarm 2: 2017-09-16 18:40:33 alarm 3: 2017-09-16 18:40:33 alarm 4: 2017-09-16 18:42:34 alarm 5: 2017-09-16 18:42:34	alarm 1: 2017-09-16 18:42:19 alarm 2: 2017-09-16 18:42:20 alarm 3: 2017-09-16 18:42:22 alarm 4: 2017-09-16 18:44:37 alarm 5: 2017-09-16 18:44:35	alarm 1: 2017-09-16 18:42:19 alarm 2: 2017-09-16 18:42:20 alarm 3: 2017-09-16 18:42:22 alarm 4: 2017-09-16 18:44:37 alarm 5: 2017-09-16 18:44:35	No

2017 Week 38: 12 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	MBS	2017-09-22 07:28:40	alarm 1: 2017-09-22 07:28:40 alarm 2: 2017-09-22 07:29:09 alarm 3: 2017-09-22 07:29:09 alarm 4: 2017-09-22 07:29:39 alarm 5: 2017-09-22 07:36:11 alarm 6: 2017-09-22 07:36:40	alarm 1: 2017-09-22 07:37:02 alarm 2: 2017-09-22 07:37:04 alarm 3: 2017-09-22 07:37:07 alarm 4: 2017-09-22 07:37:09 alarm 5: 2017-09-22 07:43:16 alarm 6: 2017-09-22 07:43:17	alarm 1: 2017-09-22 07:37:02 alarm 2: 2017-09-22 07:37:04 alarm 3: 2017-09-22 07:37:07 alarm 4: 2017-09-22 07:37:09 alarm 5: 2017-09-22 07:43:16 alarm 6: 2017-09-22 07:43:17	No
04	MBS	2017-09-19 10:04:04	alarm 1: 2017-09-19 10:04:04 alarm 2: 2017-09-19 10:04:04	alarm 1: 2017-09-19 10:07:27 alarm 2: 2017-09-19 10:07:13	alarm 1: 2017-09-19 10:07:27 alarm 2: 2017-09-19 10:07:13	No
05	MBS	2017-09-21 00:41:34	alarm 1: 2017-09-21 00:41:34 alarm 2: 2017-09-21 00:44:04	alarm 1: 2017-09-21 00:47:23 alarm 2: 2017-09-21 00:47:25	alarm 1: 2017-09-21 00:47:23 alarm 2: 2017-09-21 00:47:25	No
05	MBS	2017-09-24 01:52:05	alarm 1: 2017-09-24 01:52:05	alarm 1: 2017-09-24 01:59:59	alarm 1: 2017-09-24 01:59:59	No
05	MBS	2017-09-24 11:55:37	alarm 1: 2017-09-24 11:55:37 alarm 2: 2017-09-24 11:56:07 alarm 3: 2017-09-24 11:56:37	alarm 1: 2017-09-24 12:00:48 alarm 2: 2017-09-24 12:00:46 alarm 3: 2017-09-24 12:00:43	alarm 1: 2017-09-24 12:00:48 alarm 2: 2017-09-24 12:00:46 alarm 3: 2017-09-24 12:00:43	No
05	MBS	2017-09-24 22:03:35	alarm 1: 2017-09-24 22:03:35 alarm 2: 2017-09-24 22:05:06	alarm 1: 2017-09-24 22:11:22 alarm 2: 2017-09-24 22:11:23	alarm 1: 2017-09-24 22:11:22 alarm 2: 2017-09-24 22:11:23	No
06A	MBS	2017-09-19 11:28:52	alarm 1: 2017-09-19 11:28:52	alarm 1: 2017-09-19 11:32:15	alarm 1: 2017-09-19 11:32:15	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
06A	MBS	2017-09-19 14:19:54	alarm 1: 2017-09-19 14:19:54	alarm 1: 2017-09-19 14:26:26	alarm 1: 2017-09-19 14:26:26	No
06A	MBS	2017-09-22 06:50:13	alarm 1: 2017-09-22 06:50:13 alarm 2: 2017-09-22 06:50:13 alarm 3: 2017-09-22 06:53:12 alarm 4: 2017-09-22 06:54:12	alarm 1: 2017-09-22 06:57:41 alarm 2: 2017-09-22 06:57:42 alarm 3: 2017-09-22 06:57:43 alarm 4: 2017-09-22 06:57:45	alarm 1: 2017-09-22 06:57:41 alarm 2: 2017-09-22 06:57:42 alarm 3: 2017-09-22 06:57:43 alarm 4: 2017-09-22 06:57:45	No
61	MBS	2017-09-20 02:57:15	alarm 1: 2017-09-20 02:57:15 alarm 2: 2017-09-20 02:59:15	alarm 1: 2017-09-20 03:04:00 alarm 2: 2017-09-20 03:03:59	alarm 1: 2017-09-20 03:04:00 alarm 2: 2017-09-20 03:03:59	No
67	MBS	2017-09-19 09:11:13	alarm 1: 2017-09-19 09:11:13	alarm 1: 2017-09-19 09:53:04	alarm 1: 2017-09-19 10:00:00	Yes
78	MBS	2017-09-21 08:30:14	alarm 1: 2017-09-21 08:30:14 alarm 2: 2017-09-21 08:31:46 alarm 3: 2017-09-21 08:32:46 alarm 4: 2017-09-21 08:33:16	alarm 1: 2017-09-21 08:36:23 alarm 2: 2017-09-21 08:36:25 alarm 3: 2017-09-21 08:36:27 alarm 4: 2017-09-21 08:36:29	alarm 1: 2017-09-21 08:36:23 alarm 2: 2017-09-21 08:36:25 alarm 3: 2017-09-21 08:36:27 alarm 4: 2017-09-21 08:36:29	No

2017 Week 39: 13 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	AVB	2017-09-28 14:31:45	alarm 1: 2017-09-28 14:31:45	alarm 1: 2017-09-28 14:33:15	alarm 1: 2017-09-28 14:33:15	No
03	MBS	2017-09-30 07:55:37	alarm 1: 2017-09-30 07:55:37 alarm 2: 2017-09-30 07:55:37 alarm 3: 2017-09-30 08:02:07 alarm 4: 2017-09-30 08:02:07	alarm 1: 2017-09-30 08:04:53 alarm 2: 2017-09-30 08:04:50 alarm 3: 2017-09-30 08:05:38 alarm 4: 2017-09-30 08:05:39	alarm 1: 2017-09-30 08:04:53 alarm 2: 2017-09-30 08:04:50 alarm 3: 2017-09-30 08:05:38 alarm 4: 2017-09-30 08:05:39	No
05	AVB	2017-09-28 14:49:54	alarm 1: 2017-09-28 14:49:54	alarm 1: 2017-09-28 14:50:10	alarm 1: 2017-09-28 14:50:10	No
05	MBS	2017-09-30 19:23:04	alarm 1: 2017-09-30 19:23:04 alarm 2: 2017-09-30 19:24:04	alarm 1: 2017-09-30 19:30:03 alarm 2: 2017-09-30 19:30:02	alarm 1: 2017-09-30 19:30:03 alarm 2: 2017-09-30 19:30:02	No
06A	MBS	2017-09-27 05:48:46	alarm 1: 2017-09-27 05:48:46	alarm 1: 2017-09-27 05:51:54	alarm 1: 2017-09-27 05:51:54	No
06A	AVB	2017-09-27 13:59:04	alarm 1: 2017-09-27 13:59:04	alarm 1: 2017-09-27 14:00:30	alarm 1: 2017-09-27 14:00:30	No
06A	AVB	2017-09-28 14:55:41	alarm 1: 2017-09-28 14:55:41	alarm 1: 2017-09-28 14:57:43	alarm 1: 2017-09-28 14:57:43	No
06A	MBS	2017-09-29 15:26:56	alarm 1: 2017-09-29 15:26:56	alarm 1: 2017-09-29 15:36:06	alarm 1: 2017-09-29 15:36:06	No
10	MBS	2017-09-28 20:19:57	alarm 1: 2017-09-28 20:19:57	alarm 1: 2017-09-28 20:26:06	alarm 1: 2017-09-28 20:26:06	No
61	MBS	2017-09-26 07:39:04	alarm 1: 2017-09-26 07:39:04	alarm 1: 2017-09-26 07:44:55	alarm 1: 2017-09-26 07:44:55	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
61	MBS	2017-09-30 05:33:49	alarm 1: 2017-09-30 05:33:49 alarm 2: 2017-09-30 05:34:50	alarm 1: 2017-09-30 05:38:53 alarm 2: 2017-09-30 05:38:50	alarm 1: 2017-09-30 05:38:53 alarm 2: 2017-09-30 05:38:50	No
65	AVB	2017-09-28 13:36:12	alarm 1: 2017-09-28 13:36:12	alarm 1: 2017-09-28 13:41:25	alarm 1: 2017-09-28 13:41:25	No
78	MBS	2017-10-01 08:54:11	alarm 1: 2017-10-01 08:54:11	alarm 1: 2017-10-01 09:01:57	alarm 1: 2017-10-01 09:01:57	No

2017 Week 40: 10 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
04	MBS	2017-10-08 05:30:51	alarm 1: 2017-10-08 05:30:51 alarm 2: 2017-10-08 05:31:53	alarm 1: 2017-10-08 05:40:22 alarm 2: 2017-10-08 05:40:21	alarm 1: 2017-10-08 05:40:22 alarm 2: 2017-10-08 05:40:21	No
05	MBS	2017-10-02 06:41:26	alarm 1: 2017-10-02 06:41:26 alarm 2: 2017-10-02 06:43:58	alarm 1: 2017-10-02 06:47:36 alarm 2: 2017-10-02 06:47:38	alarm 1: 2017-10-02 06:47:36 alarm 2: 2017-10-02 06:47:38	No
05	MBS	2017-10-02 08:30:34	alarm 1: 2017-10-02 08:30:34 alarm 2: 2017-10-02 08:32:05 alarm 3: 2017-10-02 08:33:34	alarm 1: 2017-10-02 08:39:19 alarm 2: 2017-10-02 08:39:20 alarm 3: 2017-10-02 08:39:22	alarm 1: 2017-10-02 08:39:19 alarm 2: 2017-10-02 08:39:20 alarm 3: 2017-10-02 08:39:22	No
05	MBS	2017-10-06 09:50:15	alarm 1: 2017-10-06 09:50:15	alarm 1: 2017-10-06 09:54:46	alarm 1: 2017-10-06 09:54:46	No
05	MBS	2017-10-07 16:11:02	alarm 1: 2017-10-07 16:11:02 alarm 2: 2017-10-07 16:30:02	alarm 1: 2017-10-07 16:15:33 alarm 2: 2017-10-07 16:33:29	alarm 1: 2017-10-07 16:15:33 alarm 2: 2017-10-07 16:33:29	No
14	MBS	2017-10-03 12:56:24	alarm 1: 2017-10-03 12:56:24 alarm 2: 2017-10-03 12:57:24	alarm 1: 2017-10-03 13:02:04 alarm 2: 2017-10-03 13:02:06	alarm 1: 2017-10-03 13:02:04 alarm 2: 2017-10-03 13:02:06	No
14	MBS	2017-10-04 08:14:58	alarm 1: 2017-10-04 08:14:58	alarm 1: 2017-10-04 08:20:13	alarm 1: 2017-10-04 08:20:13	No
67	MBS	2017-10-08 11:32:29	alarm 1: 2017-10-08 11:32:29	alarm 1: 2017-10-08 11:35:53	alarm 1: 2017-10-08 12:09:00	Yes
78	MBS	2017-10-05 13:17:06	alarm 1: 2017-10-05 13:17:06	alarm 1: 2017-10-05 13:22:31	alarm 1: 2017-10-05 13:22:31	No
78	MBS	2017-10-08 12:26:05	alarm 1: 2017-10-08 12:26:05	alarm 1: 2017-10-08 12:32:42	alarm 1: 2017-10-08 12:32:42	No

2017 Week 41: 13 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-10-14 15:29:17	alarm 1: 2017-10-14 15:29:17	alarm 1: 2017-10-14 15:32:35	alarm 1: 2017-10-14 15:32:35	No
01	AVB	2017-10-15 03:02:05	alarm 1: 2017-10-15 03:02:05 alarm 2: 2017-10-15 03:02:05	alarm 1: 2017-10-15 03:07:12 alarm 2: 2017-10-15 03:07:08	alarm 1: 2017-10-15 03:07:12 alarm 2: 2017-10-15 03:07:08	No
03	MBS	2017-10-11 09:19:13	alarm 1: 2017-10-11 09:19:13 alarm 2: 2017-10-11 09:19:13 alarm 3: 2017-10-11 09:19:13 alarm 4: 2017-10-11 09:24:42 alarm 5: 2017-10-11 09:36:43 alarm 6: 2017-10-11 09:36:43	alarm 1: 2017-10-11 09:36:15 alarm 2: 2017-10-11 09:36:11 alarm 3: 2017-10-11 09:36:17 alarm 4: 2017-10-11 09:36:09 alarm 5: 2017-10-11 09:37:54 alarm 6: 2017-10-11 09:37:52	alarm 1: 2017-10-11 09:40:00 alarm 2: 2017-10-11 09:40:00 alarm 3: 2017-10-11 09:40:00 alarm 4: 2017-10-11 09:40:00 alarm 5: 2017-10-11 09:40:00 alarm 6: 2017-10-11 09:40:00	Yes
03	MBS	2017-10-13 07:48:57	alarm 1: 2017-10-13 07:48:57	alarm 1: 2017-10-13 07:52:30	alarm 1: 2017-10-13 07:52:30	No
04	MBS	2017-10-13 07:43:11	alarm 1: 2017-10-13 07:43:11 alarm 2: 2017-10-13 07:43:11 alarm 3: 2017-10-13 07:43:11 alarm 4: 2017-10-13 12:20:19 alarm 5: 2017-10-13 12:20:19	alarm 1: 2017-10-13 07:46:45 alarm 2: 2017-10-13 07:46:43 alarm 3: 2017-10-13 07:46:41 alarm 4: 2017-10-13 12:22:47 alarm 5: 2017-10-13 12:22:45	alarm 1: 2017-10-13 07:46:45 alarm 2: 2017-10-13 07:46:43 alarm 3: 2017-10-13 07:46:41 alarm 4: 2017-10-13 12:22:47 alarm 5: 2017-10-13 12:22:45	No
05	MBS	2017-10-10 12:43:42	alarm 1: 2017-10-10 12:43:42 alarm 2: 2017-10-10 12:45:12	alarm 1: 2017-10-10 12:50:18 alarm 2: 2017-10-10 12:50:14	alarm 1: 2017-10-10 12:50:18 alarm 2: 2017-10-10 12:50:14	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
14	MBS	2017-10-09 06:08:36	alarm 1: 2017-10-09 06:08:36	alarm 1: 2017-10-09 06:13:35	alarm 1: 2017-10-09 06:13:35	No
14	MBS	2017-10-13 00:38:25	alarm 1: 2017-10-13 00:38:25	alarm 1: 2017-10-13 01:00:56	alarm 1: 2017-10-13 12:09:00	Yes
14	MBS	2017-10-13 05:29:23	alarm 1: 2017-10-13 05:29:23 alarm 2: 2017-10-13 05:30:23	alarm 1: 2017-10-13 05:33:05 alarm 2: 2017-10-13 05:33:02	alarm 1: 2017-10-13 11:07:00 alarm 2: 2017-10-13 11:07:00	Yes
61	MBS	2017-10-10 09:16:34	alarm 1: 2017-10-10 09:16:34	alarm 1: 2017-10-10 09:26:15	alarm 1: 2017-10-10 09:26:15	No
67	MBS	2017-10-11 16:55:24	alarm 1: 2017-10-11 16:55:24	alarm 1: 2017-10-11 16:58:55	alarm 1: 2017-10-11 16:58:55	No
78	MBS	2017-10-13 00:36:43	alarm 1: 2017-10-13 00:36:43 alarm 2: 2017-10-13 01:58:14	alarm 1: 2017-10-13 00:42:52 alarm 2: 2017-10-13 02:03:54	alarm 1: 2017-10-13 01:27:00 alarm 2: 2017-10-13 01:27:00	Yes
78	MBS	2017-10-13 07:32:50	alarm 1: 2017-10-13 07:32:50	alarm 1: 2017-10-13 08:27:12	alarm 1: 2017-10-13 08:29:00	Yes

2017 Week 42: 18 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	MBS	2017-10-18 06:38:56	alarm 1: 2017-10-18 06:38:56	alarm 1: 2017-10-18 06:42:15	alarm 1: 2017-10-18 06:42:15	No
02	MBS	2017-10-20 11:12:12	alarm 1: 2017-10-20 11:12:12 alarm 2: 2017-10-20 11:12:42	alarm 1: 2017-10-20 11:17:57 alarm 2: 2017-10-20 11:17:58	alarm 1: 2017-10-20 11:17:57 alarm 2: 2017-10-20 11:17:58	No
02	MBS	2017-10-21 09:10:31	alarm 1: 2017-10-21 09:10:31	alarm 1: 2017-10-21 09:20:36	alarm 1: 2017-10-21 14:59:00	Yes
04	MBS	2017-10-19 09:59:36	alarm 1: 2017-10-19 09:59:36	alarm 1: 2017-10-19 10:04:00	alarm 1: 2017-10-19 10:04:00	No
05	MBS	2017-10-16 06:19:09	alarm 1: 2017-10-16 06:19:09	alarm 1: 2017-10-16 06:24:42	alarm 1: 2017-10-16 06:24:42	No
05	MBS	2017-10-17 11:13:47	alarm 1: 2017-10-17 11:13:47 alarm 2: 2017-10-17 11:14:48 alarm 3: 2017-10-17 11:22:53	alarm 1: 2017-10-17 12:32:45 alarm 2: 2017-10-17 12:32:47 alarm 3: 2017-10-17 12:32:51	alarm 1: 2017-10-17 12:48:00 alarm 2: 2017-10-17 12:48:00 alarm 3: 2017-10-17 12:48:00	Yes
05	MBS	2017-10-17 16:25:38	alarm 1: 2017-10-17 16:25:38	alarm 1: 2017-10-17 17:35:15	alarm 1: 2017-10-17 18:00:00	Yes
05	MBS	2017-10-17 18:40:48	alarm 1: 2017-10-17 18:40:48	alarm 1: 2017-10-17 18:46:25	alarm 1: 2017-10-17 18:46:25	No
05	MBS	2017-10-20 03:11:49	alarm 1: 2017-10-20 03:11:49 alarm 2: 2017-10-20 03:14:19	alarm 1: 2017-10-20 03:17:58 alarm 2: 2017-10-20 03:17:59	alarm 1: 2017-10-20 03:17:58 alarm 2: 2017-10-20 03:17:59	No
05	MBS	2017-10-20 08:09:09	alarm 1: 2017-10-20 08:09:09 alarm 2: 2017-10-20 08:09:09 alarm 3: 2017-10-20 08:55:40	alarm 1: 2017-10-20 08:16:06 alarm 2: 2017-10-20 08:16:07 alarm 3: 2017-10-20 08:59:02	alarm 1: 2017-10-20 08:16:06 alarm 2: 2017-10-20 08:16:07 alarm 3: 2017-10-20 08:59:02	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
05	MBS	2017-10-21 04:55:10	alarm 1: 2017-10-21 04:55:10	alarm 1: 2017-10-21 05:00:23	alarm 1: 2017-10-21 05:00:23	No
06A	MBS	2017-10-17 12:28:42	alarm 1: 2017-10-17 12:28:42	alarm 1: 2017-10-17 12:37:04	alarm 1: 2017-10-17 12:37:04	No
10	MBS	2017-10-17 14:30:57	alarm 1: 2017-10-17 14:30:57 alarm 2: 2017-10-17 14:30:57	alarm 1: 2017-10-17 14:37:47 alarm 2: 2017-10-17 14:37:48	alarm 1: 2017-10-17 14:37:47 alarm 2: 2017-10-17 14:37:48	No
14	AVB	2017-10-18 14:15:18	alarm 1: 2017-10-18 14:15:18	alarm 1: 2017-10-18 14:16:24	alarm 1: 2017-10-18 14:16:24	No
61	MBS	2017-10-18 13:22:18	alarm 1: 2017-10-18 13:22:18 alarm 2: 2017-10-18 13:22:18 alarm 3: 2017-10-18 16:47:20	alarm 1: 2017-10-18 13:23:48 alarm 2: 2017-10-18 13:23:40 alarm 3: 2017-10-18 16:48:59	alarm 1: 2017-10-18 13:23:48 alarm 2: 2017-10-18 13:23:40 alarm 3: 2017-10-18 16:48:59	No
61	AVB	2017-10-18 15:01:19	alarm 1: 2017-10-18 15:01:19	alarm 1: 2017-10-18 15:01:40	alarm 1: 2017-10-18 15:01:40	No
78	MBS	2017-10-17 11:34:41	alarm 1: 2017-10-17 11:34:41	alarm 1: 2017-10-17 11:40:11	alarm 1: 2017-10-17 11:40:11	No
78	AVB	2017-10-18 15:25:20	alarm 1: 2017-10-18 15:25:20	alarm 1: 2017-10-18 15:27:08	alarm 1: 2017-10-18 15:27:08	No

2017 Week 43: 8 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-10-25 12:00:59	alarm 1: 2017-10-25 12:00:59 alarm 2: 2017-10-25 12:02:29	alarm 1: 2017-10-25 12:07:05 alarm 2: 2017-10-25 12:07:34	alarm 1: 2017-10-25 12:07:05 alarm 2: 2017-10-25 12:07:34	No
02	MBS	2017-10-24 05:23:50	alarm 1: 2017-10-24 05:23:50	alarm 1: 2017-10-24 05:27:36	alarm 1: 2017-10-24 05:27:36	No
02	MBS	2017-10-25 10:22:21	alarm 1: 2017-10-25 10:22:21 alarm 2: 2017-10-25 10:23:21 alarm 3: 2017-10-25 10:31:21	alarm 1: 2017-10-25 10:28:35 alarm 2: 2017-10-25 10:28:39 alarm 3: 2017-10-25 10:40:44	alarm 1: 2017-10-25 11:55:00 alarm 2: 2017-10-25 11:55:00 alarm 3: 2017-10-25 11:55:00	Yes
05	MBS	2017-10-23 14:33:32	alarm 1: 2017-10-23 14:33:32	alarm 1: 2017-10-23 14:37:56	alarm 1: 2017-10-23 14:37:56	No
05	MBS	2017-10-24 06:57:46	alarm 1: 2017-10-24 06:57:46	alarm 1: 2017-10-24 07:12:53	alarm 1: 2017-10-24 07:23:00	Yes
05	MBS	2017-10-24 11:35:56	alarm 1: 2017-10-24 11:35:56 alarm 2: 2017-10-24 11:36:26	alarm 1: 2017-10-24 11:40:54 alarm 2: 2017-10-24 11:40:52	alarm 1: 2017-10-24 11:40:54 alarm 2: 2017-10-24 11:40:52	No
05	MBS	2017-10-26 06:06:44	alarm 1: 2017-10-26 06:06:44 alarm 2: 2017-10-26 06:06:44 alarm 3: 2017-10-26 06:06:44	alarm 1: 2017-10-26 06:08:29 alarm 2: 2017-10-26 06:08:27 alarm 3: 2017-10-26 06:08:24	alarm 1: 2017-10-26 06:08:29 alarm 2: 2017-10-26 06:08:27 alarm 3: 2017-10-26 06:08:24	No
05	MBS	2017-10-28 17:27:46	alarm 1: 2017-10-28 17:27:46	alarm 1: 2017-10-28 17:30:57	alarm 1: 2017-10-28 17:30:57	No

2017 Week 44: 17 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
01	MBS	2017-11-03 21:00:04	alarm 1: 2017-11-03 21:00:04 alarm 2: 2017-11-03 21:02:33	alarm 1: 2017-11-03 21:09:51 alarm 2: 2017-11-03 21:09:52	alarm 1: 2017-11-03 23:02:00 alarm 2: 2017-11-03 23:02:00	Yes
02	MBS	2017-11-01 04:29:43	alarm 1: 2017-11-01 04:29:43	alarm 1: 2017-11-01 05:29:08	alarm 1: 2017-11-01 05:49:00	Yes
03	MBS	2017-11-01 09:35:08	alarm 1: 2017-11-01 09:35:08 alarm 2: 2017-11-01 09:35:08 alarm 3: 2017-11-01 09:43:36 alarm 4: 2017-11-01 09:43:36 alarm 5: 2017-11-01 09:43:36	alarm 1: 2017-11-01 09:38:06 alarm 2: 2017-11-01 09:38:04 alarm 3: 2017-11-01 09:46:59 alarm 4: 2017-11-01 09:47:01 alarm 5: 2017-11-01 09:46:56	alarm 1: 2017-11-01 09:38:06 alarm 2: 2017-11-01 09:38:04 alarm 3: 2017-11-01 09:46:59 alarm 4: 2017-11-01 09:47:01 alarm 5: 2017-11-01 09:46:56	No
03	MBS	2017-11-04 19:27:50	alarm 1: 2017-11-04 19:27:50 alarm 2: 2017-11-04 19:27:50 alarm 3: 2017-11-04 19:28:50	alarm 1: 2017-11-04 19:34:48 alarm 2: 2017-11-04 19:34:50 alarm 3: 2017-11-04 19:34:51	alarm 1: 2017-11-04 19:34:48 alarm 2: 2017-11-04 19:34:50 alarm 3: 2017-11-04 19:34:51	No
05	MBS	2017-10-31 15:35:08	alarm 1: 2017-10-31 15:35:08 alarm 2: 2017-10-31 15:37:39 alarm 3: 2017-10-31 15:41:09	alarm 1: 2017-10-31 15:40:32 alarm 2: 2017-10-31 15:40:29 alarm 3: 2017-10-31 15:41:53	alarm 1: 2017-10-31 15:40:32 alarm 2: 2017-10-31 15:40:29 alarm 3: 2017-10-31 15:41:53	No
05	MBS	2017-11-01 07:55:49	alarm 1: 2017-11-01 07:55:49	alarm 1: 2017-11-01 07:59:19	alarm 1: 2017-11-01 07:59:19	No
05	MBS	2017-11-01 09:11:44	alarm 1: 2017-11-01 09:11:44	alarm 1: 2017-11-01 09:12:37	alarm 1: 2017-11-01 09:12:37	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
05	MBS	2017-11-02 09:56:26	alarm 1: 2017-11-02 09:56:26 alarm 2: 2017-11-02 09:58:56	alarm 1: 2017-11-02 10:00:04 alarm 2: 2017-11-02 10:00:02	alarm 1: 2017-11-02 10:00:04 alarm 2: 2017-11-02 10:00:02	No
05	MBS	2017-11-04 10:40:08	alarm 1: 2017-11-04 10:40:08	alarm 1: 2017-11-04 10:43:02	alarm 1: 2017-11-04 10:43:02	No
06A	MBS	2017-11-01 05:05:41	alarm 1: 2017-11-01 05:05:41	alarm 1: 2017-11-01 05:09:32	alarm 1: 2017-11-01 05:47:00	Yes

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
06A	MBS	2017-11-01 06:38:13	alarm 1: 2017-11-01 06:38:13 alarm 2: 2017-11-01 06:38:13 alarm 3: 2017-11-01 06:43:13 alarm 4: 2017-11-01 06:43:13 alarm 5: 2017-11-01 06:43:13 alarm 6: 2017-11-01 06:46:44 alarm 7: 2017-11-01 06:46:44 alarm 8: 2017-11-01 07:00:50 alarm 9: 2017-11-01 07:00:50 alarm 10: 2017-11-01 07:00:50 alarm 11: 2017-11-01 07:09:14 alarm 12: 2017-11-01 07:09:14 alarm 13: 2017-11-01 07:11:07 alarm 14: 2017-11-01 07:11:07 alarm 15: 2017-11-01 07:11:07	alarm 1: 2017-11-01 07:22:17 alarm 2: 2017-11-01 07:22:19 alarm 3: 2017-11-01 07:22:20 alarm 4: 2017-11-01 07:22:21 alarm 5: 2017-11-01 07:22:22 alarm 6: 2017-11-01 07:22:24 alarm 7: 2017-11-01 07:22:25 alarm 8: 2017-11-01 07:22:28 alarm 9: 2017-11-01 07:22:31 alarm 10: 2017-11-01 07:22:33 alarm 11: 2017-11-01 07:22:34 alarm 12: 2017-11-01 07:22:36 alarm 13: 2017-11-01 07:22:37 alarm 14: 2017-11-01 07:22:38 alarm 15: 2017-11-01 07:22:39	alarm 1: 2017-11-01 07:41:00 alarm 2: 2017-11-01 07:41:00 alarm 3: 2017-11-01 07:41:00 alarm 4: 2017-11-01 07:41:00 alarm 5: 2017-11-01 07:41:00 alarm 6: 2017-11-01 07:41:00 alarm 7: 2017-11-01 07:41:00 alarm 8: 2017-11-01 07:41:00 alarm 9: 2017-11-01 07:41:00 alarm 10: 2017-11-01 07:41:00 alarm 11: 2017-11-01 07:41:00 alarm 12: 2017-11-01 07:41:00 alarm 13: 2017-11-01 07:41:00 alarm 14: 2017-11-01 07:41:00 alarm 15: 2017-11-01 07:41:00	Yes
06A	MBS	2017-11-01 08:45:31	alarm 1: 2017-11-01 08:45:31 alarm 2: 2017-11-01 08:45:31 alarm 3: 2017-11-01 08:45:31	alarm 1: 2017-11-01 08:51:02 alarm 2: 2017-11-01 08:51:00 alarm 3: 2017-11-01 08:50:58	alarm 1: 2017-11-01 08:51:02 alarm 2: 2017-11-01 08:51:00 alarm 3: 2017-11-01 08:50:58	No
06A	MBS	2017-11-01 09:50:57	alarm 1: 2017-11-01 09:50:57	alarm 1: 2017-11-01 09:53:50	alarm 1: 2017-11-01 09:53:50	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
14	MBS	2017-11-01 12:28:30	alarm 1: 2017-11-01 12:28:30	alarm 1: 2017-11-01 12:29:06	alarm 1: 2017-11-01 12:29:06	No
61	MBS	2017-11-02 10:22:25	alarm 1: 2017-11-02 10:22:25	alarm 1: 2017-11-02 10:23:35	alarm 1: 2017-11-02 10:23:35	No
67	MBS	2017-11-05 22:16:34	alarm 1: 2017-11-05 22:16:34	alarm 1: 2017-11-05 22:25:40	alarm 1: 2017-11-05 22:25:40	No
78	MBS	2017-11-01 10:28:27	alarm 1: 2017-11-01 10:28:27	alarm 1: 2017-11-01 10:29:11	alarm 1: 2017-11-01 10:29:11	No

2017 Week 45: 21 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	MBS	2017-11-10 02:57:44	alarm 1: 2017-11-10 02:57:44	alarm 1: 2017-11-10 03:07:07	alarm 1: 2017-11-10 03:07:07	No
03	MBS	2017-11-10 04:36:41	alarm 1: 2017-11-10 04:36:41	alarm 1: 2017-11-10 04:46:24	alarm 1: 2017-11-10 04:46:24	No
03	MBS	2017-11-10 05:04:13	alarm 1: 2017-11-10 05:04:13 alarm 2: 2017-11-10 05:04:13	alarm 1: 2017-11-10 05:12:52 alarm 2: 2017-11-10 05:12:51	alarm 1: 2017-11-10 05:12:52 alarm 2: 2017-11-10 05:12:51	No
03	MBS	2017-11-11 05:52:13	alarm 1: 2017-11-11 05:52:13 alarm 2: 2017-11-11 05:52:13	alarm 1: 2017-11-11 05:58:16 alarm 2: 2017-11-11 05:58:14	alarm 1: 2017-11-11 05:58:16 alarm 2: 2017-11-11 05:58:14	No
03	MBS	2017-11-11 08:58:21	alarm 1: 2017-11-11 08:58:21 alarm 2: 2017-11-11 08:58:21 alarm 3: 2017-11-11 08:58:21	alarm 1: 2017-11-11 09:36:49 alarm 2: 2017-11-11 09:36:46 alarm 3: 2017-11-11 09:36:43	alarm 1: 2017-11-11 14:59:00 alarm 2: 2017-11-11 14:59:00 alarm 3: 2017-11-11 14:59:00	Yes
03	MBS	2017-11-11 14:29:06	alarm 1: 2017-11-11 14:29:06 alarm 2: 2017-11-11 14:29:06	alarm 1: 2017-11-11 14:37:52 alarm 2: 2017-11-11 14:37:50	alarm 1: 2017-11-11 15:00:00 alarm 2: 2017-11-11 15:00:00	Yes
03	MBS	2017-11-11 16:03:09	alarm 1: 2017-11-11 16:03:09	alarm 1: 2017-11-11 16:08:05	alarm 1: 2017-11-11 16:08:05	No
03	MBS	2017-11-11 16:10:09	alarm 1: 2017-11-11 16:10:09 alarm 2: 2017-11-11 16:13:09	alarm 1: 2017-11-11 16:17:57 alarm 2: 2017-11-11 16:17:58	alarm 1: 2017-11-11 16:17:57 alarm 2: 2017-11-11 16:17:58	No
05	MBS	2017-11-09 08:37:43	alarm 1: 2017-11-09 08:37:43 alarm 2: 2017-11-09 08:38:13	alarm 1: 2017-11-09 08:42:16 alarm 2: 2017-11-09 08:42:10	alarm 1: 2017-11-09 08:42:16 alarm 2: 2017-11-09 08:42:10	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
05	MBS	2017-11-09 08:46:12	alarm 1: 2017-11-09 08:46:12 alarm 2: 2017-11-09 08:47:12	alarm 1: 2017-11-09 08:48:09 alarm 2: 2017-11-09 08:53:18	alarm 1: 2017-11-09 08:48:09 alarm 2: 2017-11-09 08:53:18	No
05	MBS	2017-11-12 05:25:15	alarm 1: 2017-11-12 05:25:15 alarm 2: 2017-11-12 05:26:46 alarm 3: 2017-11-12 05:37:19	alarm 1: 2017-11-12 05:30:46 alarm 2: 2017-11-12 05:34:04 alarm 3: 2017-11-12 05:41:25	alarm 1: 2017-11-12 05:30:46 alarm 2: 2017-11-12 05:34:04 alarm 3: 2017-11-12 05:41:25	No
06A	MBS	2017-11-07 05:53:07	alarm 1: 2017-11-07 05:53:07	alarm 1: 2017-11-07 05:56:27	alarm 1: 2017-11-07 05:56:27	No
06A	MBS	2017-11-11 05:15:45	alarm 1: 2017-11-11 05:15:45 alarm 2: 2017-11-11 05:15:45	alarm 1: 2017-11-11 05:20:41 alarm 2: 2017-11-11 05:20:43	alarm 1: 2017-11-11 05:20:41 alarm 2: 2017-11-11 05:20:43	No
14	MBS	2017-11-07 13:30:56	alarm 1: 2017-11-07 13:30:56 alarm 2: 2017-11-07 13:30:56 alarm 3: 2017-11-07 13:30:56	alarm 1: 2017-11-07 13:39:57 alarm 2: 2017-11-07 13:39:53 alarm 3: 2017-11-07 13:39:54	alarm 1: 2017-11-07 13:39:57 alarm 2: 2017-11-07 13:39:53 alarm 3: 2017-11-07 13:39:54	No
14	MBS	2017-11-08 00:07:34	alarm 1: 2017-11-08 00:07:34	alarm 1: 2017-11-08 00:13:26	alarm 1: 2017-11-08 00:13:26	No

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
61	MBS	2017-11-07 02:43:27	alarm 1: 2017-11-07 02:43:27 alarm 2: 2017-11-07 02:45:27 alarm 3: 2017-11-07 02:48:26 alarm 4: 2017-11-07 05:12:26 alarm 5: 2017-11-07 05:19:25 alarm 6: 2017-11-07 06:04:25	alarm 1: 2017-11-07 02:49:39 alarm 2: 2017-11-07 02:49:44 alarm 3: 2017-11-07 02:49:46 alarm 4: 2017-11-07 05:14:42 alarm 5: 2017-11-07 05:22:37 alarm 6: 2017-11-07 06:06:40	alarm 1: 2017-11-07 05:15:00 alarm 2: 2017-11-07 05:15:00 alarm 3: 2017-11-07 05:15:00 alarm 4: 2017-11-07 05:15:00 alarm 5: 2017-11-07 05:15:00 alarm 6: 2017-11-07 05:15:00	Yes
61	MBS	2017-11-07 06:55:55	alarm 1: 2017-11-07 06:55:55 alarm 2: 2017-11-07 06:56:27 alarm 3: 2017-11-07 07:03:27	alarm 1: 2017-11-07 06:59:46 alarm 2: 2017-11-07 06:59:47 alarm 3: 2017-11-07 07:06:03	alarm 1: 2017-11-07 08:32:00 alarm 2: 2017-11-07 08:32:00 alarm 3: 2017-11-07 08:32:00	Yes
61	MBS	2017-11-09 14:01:59	alarm 1: 2017-11-09 14:01:59	alarm 1: 2017-11-09 14:06:40	alarm 1: 2017-11-09 14:06:40	No
67	MBS	2017-11-10 22:46:38	alarm 1: 2017-11-10 22:46:38	alarm 1: 2017-11-10 22:51:51	alarm 1: 2017-11-10 22:51:51	No
67	MBS	2017-11-11 07:59:13	alarm 1: 2017-11-11 07:59:13 alarm 2: 2017-11-11 07:59:44 alarm 3: 2017-11-11 08:00:13	alarm 1: 2017-11-11 08:03:56 alarm 2: 2017-11-11 08:03:57 alarm 3: 2017-11-11 08:03:59	alarm 1: 2017-11-11 08:03:56 alarm 2: 2017-11-11 08:03:57 alarm 3: 2017-11-11 08:03:59	No
78	AVB	2017-11-11 04:01:47	alarm 1: 2017-11-11 04:01:47	alarm 1: 2017-11-11 04:08:02	alarm 1: 2017-11-11 04:08:02	No

2017 Week 46: 6 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
02	MBS	2017-11-17 08:48:19	alarm 1: 2017-11-17 08:48:19	alarm 1: 2017-11-17 08:51:58	alarm 1: 2017-11-17 08:51:58	No
03	AVB	2017-11-15 14:01:40	alarm 1: 2017-11-15 14:01:40	alarm 1: 2017-11-15 14:04:57	alarm 1: 2017-11-15 14:04:57	No
03	MBS	2017-11-15 17:16:17	alarm 1: 2017-11-15 17:16:17	alarm 1: 2017-11-15 17:18:02	alarm 1: 2017-11-15 17:18:02	No
05	MBS	2017-11-15 05:52:26	alarm 1: 2017-11-15 05:52:26	alarm 1: 2017-11-15 05:55:26	alarm 1: 2017-11-15 05:55:26	No
05	MBS	2017-11-19 06:14:36	alarm 1: 2017-11-19 06:14:36 alarm 2: 2017-11-19 15:43:42	alarm 1: 2017-11-19 06:20:48 alarm 2: 2017-11-19 15:47:40	alarm 1: 2017-11-19 06:20:48 alarm 2: 2017-11-19 15:47:40	No
06A	MBS	2017-11-19 08:17:45	alarm 1: 2017-11-19 08:17:45 alarm 2: 2017-11-19 08:19:16	alarm 1: 2017-11-19 08:22:25 alarm 2: 2017-11-19 08:22:23	alarm 1: 2017-11-19 08:22:25 alarm 2: 2017-11-19 08:22:23	No

2017 Week 47: 2 alarms in total

Pipeline	Type	Alarming Event Start Time	Alarm Received Time	Alarm Assessed Time	Alarm Cleared Time	Shutdown Required
03	AVB	2017-11-22 18:01:53	alarm 1: 2017-11-22 18:01:53	alarm 1: 2017-11-22 18:06:19	alarm 1: 2017-11-22 18:06:19	No
10	MBS	2017-11-21 08:42:29	alarm 1: 2017-11-21 08:42:29	alarm 1: 2017-11-21 08:47:55	alarm 1: 2017-11-21 08:47:55	No

4. Instrumentation Outage Report

The records in this report each contain data that are referenced by the Consent Decree. The terms are explained in the following table.

Table 4a: Description of fields in this Report

Data	Description
Pipeline	Name (number) of the pipeline on which the instrument is located
Station	Location of the instrument
Outage Start	Date and time when the instrumentation outage began
Outage End	Date and time when the instrumentation outage was resolved
Root Cause	Reason for instrumentation outage (root cause analysis performed by the Leak Detection Analyst)

The records report instances when the outage exceeds time periods set forth in section VII.G.IV.97 of the decree.

Note Enbridge uses root cause descriptions to categorize the outage. The root cause has a finer granularity than the "Reason for Instrumentation Outage" listed in section VII.G.IV.97 of the decree, but is equivalent. The following table maps the fixed set of root causes that result in the "Reason for Instrumentation Outage" listed in section VII.G.IV.97 of the decree as well as their corresponding fixed set of actions to resolve each outage type.

Table 4b: Description of reasons for outage and actions taken to resolve it

Reason for Instrumentation Outage	Time Limit to Restore	Root Cause	Actions Taken to Resolve the Outage
Instrumentation Failure	10 days	Instrumentation Error	Fixed the Instrument
Instrumentation Failure	10 days	Communication Interruption	Restored Communications
Instrumentation Failure	10 days	Power Outage	Restored Power
Scheduled Maintenance or Repairs	4 days	Field Maintenance	Finished the Maintenance

Table 4c: Instrumentation Outage Report

Pipeline	Station	Outage Start	Outage End	Root Cause

Appendix 2 - Lakehead System Pipeline Incident Reporting [112]

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Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**	**Date and Time Investigation Concluded**	**Information Provided with the Notice**	**Conclusion and Findings of the Investigation**	**Lakehead Lines Affected**
[redacted]	05/27/2017 12:40 MST	05/27/2017 12:46 MST	05/27/2017 08:05 MST (Already shutdown)	[redacted]	[redacted]	Line 78
[redacted]	06/05/2017 19:12 MST	06/05/2017 19:22 MST	06/05/2017 19:23 MST	[redacted]	[redacted]	Line 2B Line 3 Line 4 Line 5 Line 14 Line 67
[redacted]	06/09/2017 05:50 MST	06/09/2017 05:52 MST	06/09/2017 05:54 MST	[redacted]	[redacted]	Line 5 Line 6

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Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**	**Date and Time Investigation Concluded**	**Information Provided with the Notice**	**Conclusion and Findings of the Investigation**	**Lakehead Lines Affected**
[redacted]	06/15/2017 14:00 MST	06/15/2017 14:05 MST	06/15/2017 14:03 MST (Lines were already in the midst of shutting down before the investigation began)	[redacted]	[redacted]	Line 1 Line 2B Line 3 Line 4 Line 5 Line 14 Line 65 Line 67
[redacted]	07/13/2017 08:38 MST	07/13/2017 08:38 MST	07/13/2017 08:43 MST	[redacted]	[redacted]	Line 6A Line 14

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Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**	**Date and Time Investigation Concluded**	**Information Provided with the Notice**	**Conclusion and Findings of the Investigation**	**Lakehead Lines Affected**
[redacted]	07/13/2017 13:03 MST	07/13/2017 13:09 MST	07/13/2017 13:10 MST	[redacted]	[redacted]	Line 14 Line 14 Line 06A Line 7 Line 61
[redacted]	07/18/2017 06:58 MST	07/18/2017 07:05 MST	07/18/2017 07:03 MST	[redacted]	[redacted]	Line 5 Line 6
[redacted]	08/01/2017 05:25 MST	08/01/2017 05:30 MST	08/01/2017 05:26 MST	[redacted]	[redacted]	Line 1 Line 02B Line 3 Line 4 Line 5 Line 14 Line 65 Line 67

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Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**	**Date and Time Investigation Concluded**	**Information Provided with the Notice**	**Conclusion and Findings of the Investigation**	**Lakehead Lines Affected**
[redacted]	08/04/2017 06:04 MST	08/04/2017 06:11 MST	08/04/2017 06:12 MST	[redacted]		Line 61 Line 62 Line 78
	08/04/2017 08:58 MST	08/04/2017 09:02 MST	08/04/2017 09:01 MST			Line 6A Line 14 Line 62 Line 64
	08/17/2017 14:10 MST	08/17/2017 14:15 MST	08/17/2017 14:15 MST			Line 5 Line 6

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Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**	**Date and Time Investigation Concluded**	**Information Provided with the Notice**	**Conclusion and Findings of the Investigation**	**Lakehead Lines Affected**
[redacted]	08/21/2017 08:33 MST	08/21/2017 08:37 MST	08/21/2017 08:40 MST	[redacted]	[redacted]	Line 14
[redacted]	08/30/2017 15:08 MST	08/30/2017 15:12 MST	08/30/2017 15:13 MST	[redacted]	[redacted]	Line 5 Line 6 Line 78
[redacted]	09/02/2017 02:44 MST	09/02/2017 02:46 MST	09/02/2017 02:46 MST	[redacted]	[redacted]	Line 14

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Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**	**Date and Time Investigation Concluded**	**Information Provided with the Notice**	**Conclusion and Findings of the Investigation**	**Lakehead Lines Affected**
[redacted]	09/08/2017 05:08 MST	09/08/2017 05:13 MST	09/08/2017 05:16 MST	[redacted]	[redacted]	Line 6A Line 14 Line 64 Line 33 Line 78
[redacted]	09/09/2017 16:41 MST	09/09/2017 16:44 MST	09/09/2017 16:43 MST	[redacted]	[redacted]	Line 5 Line 6
[redacted]	09/18/2017 20:56 MST	09/18/2017 21:01 MST	Lines affected already shutdown	[redacted]	[redacted]	Line 6A Line 78 Line 64

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Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**	**Date and Time Investigation Concluded**	**Information Provided with the Notice**	**Conclusion and Findings of the Investigation**	**Lakehead Lines Affected**
[redacted]	09/30/2017 05:13 MST	09/30/2017 05:23 MST	09/30/2017 05:24 MST	[redacted]	[redacted]	Line 6A Line 14 Line 61
[redacted]	10/04/2017 06:26 MST	10/04/2017 06:30 MST	10/04/2017 06:37 MST	[redacted]	[redacted]	Line 78
[redacted]	10/07/2017 18:34 MST	10/07/2017 18:36 MST	10/07/2017 18:38 MST	[redacted]	[redacted]	Line 5 Line 6

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Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**	**Date and Time Investigation Concluded**	**Information Provided with the Notice**	**Conclusion and Findings of the Investigation**	**Lakehead Lines Affected**
[redacted]	10/12/2017 21:51 MST	10/12/2017 21:57 MST	10/12/2017 22:01 MST	[redacted]	[redacted]	Line 6A Line 64

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Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**	**Date and Time Investigation Concluded**	**Information Provided with the Notice**	**Conclusion and Findings of the Investigation**	**Lakehead Lines Affected**
[redacted]	10/16/2017 11:30 MST	10/16/2017 11:30 MST	10/16/2017 11:38 MST	[redacted]	[redacted]	Line 5 Line 78
[redacted]	10/17/2017 07:38 MST	10/17/2017 07:38 MST	No shutdown required (Line was already shutdown)	[redacted]	[redacted]	Line 6A

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Lakehead System Pipeline Incident Reporting						
Incident Description	**Date and Time Notice Received**	**Date and Time Investigation Began**	**Date and Time Investigation Concluded**	**Information Provided with the Notice**	**Conclusion and Findings of the Investigation**	**Lakehead Lines Affected**
[redacted]	10/20/2017 06:37 MST	10/20/2017 06:43 MST	10/20/2017 06:47 MST	[redacted]	[redacted]	Line 6A Line 14 Line 61
[redacted]	10/27/2017 16:26 MST	10/27/2017 16:28 MST	10/27/2017 16:28 MST	[redacted]	[redacted]	Line 5 Line 6A Line 78
[redacted]	11/07/2017 21:09 MST	11/07/2017 21:17 MST	11/07/2017 21:20 MST	[redacted]	[redacted]	Line 6A
[redacted]	11/13/2017 09:09 MST	11/13/2017 09:13 MST	11/13/2017 09:18 MST	[redacted]	[redacted]	Line 6A Line 14

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Appendix 3 - Table of Temporary MBS Suspension [93-94, 96-97]

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Temporary MBS Suspension			
Reason for Instrumentation Outage	**Time Period to Restore MBS Segment to Operation (Requirement)**	**Number of Occurrences**	**Number of Occurrences Exceeding Time Period**
Instrumentation failure	10 days	24	0
Bypass of ILI Tool	4 hours	30	0
Scheduled maintenance or repairs	4 days	59	0

Appendix 4 – Control Points with Proposed Changes [117]

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Highlighting indicates that these points were duplicated in a previous submittal.

Control Points with Proposed Changes							
Region	**CP_ID**	**Longitude**	**Latitude**	**WaterCrossing**	**DOJ_CP_Names**	**Upstream Pipelines**	**Reason for Change**
Great Lakes	GLRCP0001	[redacted]	[redacted]	Kishwaukee River	CP369-3.3	Line 14	New nomenclature
Great Lakes	GLRCP0002	[redacted]	[redacted]	Kishwaukee River	CP369-4.2	Line 14	New nomenclature
Great Lakes	GLRCP0003	[redacted]	[redacted]	Kishwaukee River	CP369-6.4	Line 14	New nomenclature
Great Lakes	GLRCP0004	[redacted]	[redacted]	Kishwaukee River	CP369-7.9	Line 14	New nomenclature
Great Lakes	GLRCP0005	[redacted]	[redacted]	Kishwaukee River	CP369-11.6	Line 14	New nomenclature
Great Lakes	GLRCP0006	[redacted]	[redacted]	Kishwaukee River	CP369-14.5	Line 14	New nomenclature
Great Lakes	GLRCP0007	[redacted]	[redacted]	Kishwaukee River		Line 13 & Line 61	Not originally included in Appendix D
Great Lakes	GLRCP0008	[redacted]	[redacted]	Kishwaukee Coon	CP363-2.5	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0009	[redacted]	[redacted]	Kishwaukee River	CP356-12.6 / CP363-3.7	Line 13 & Line 61	New nomenclature and duplicated control points
Great Lakes	GLRCP0010	[redacted]	[redacted]	Kishwaukee River	CP356-19.3 / CP363-10.6	Line 13 & Line 61	New nomenclature and duplicated control points
Great Lakes	GLRCP0011	[redacted]	[redacted]	Kishwaukee River	CP363-12.7	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0012	[redacted]	[redacted]	Kishwaukee River	CP363-17.4	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0013	[redacted]	[redacted]	Kishwaukee River	CP363-21.2	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0014	[redacted]	[redacted]	South Branch Kishwaukee River	CP371-5.0	Line 14	New nomenclature
Great Lakes	GLRCP0015	[redacted]	[redacted]	South Branch Kishwaukee River	CP371-3.4	Line 14	New nomenclature
Great Lakes	GLRCP0016	[redacted]	[redacted]	Beaver Creek	CP351-2.8	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0017	[redacted]	[redacted]	Beaver Creek	CP351-5.6	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0018	[redacted]	[redacted]	Beaver Creek	CP351-11.8	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0019	[redacted]	[redacted]	Beaver Creek	CP351-17.8	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0020	[redacted]	[redacted]	Beaver Creek	CP351-19.4	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0021	[redacted]	[redacted]	Piscasaw Creek	CP356-5.5	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0022	[redacted]	[redacted]	Piscasaw Creek	CP356-7.5	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0023	[redacted]	[redacted]	Piscasaw Creek	CP356-9.0	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0024	[redacted]	[redacted]	Piscasaw Creek	CP356-10.5	Line 13 & Line 61	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]					
Great Lakes	GLRCP0025			South Branch Kishwaukee River	CP390-1.8	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0026			South Branch Kishwaukee River	CP390-5.0	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0027			South Branch Kishwaukee River	CP390-8.2	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0028			South Branch Kishwaukee River	CP390-10.1	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0029			South Branch Kishwaukee River	CP390-14.1	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0030			South Branch Kishwaukee River	CP374-3.5	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0031			South Branch Kishwaukee River	CP374-5.5	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0032			South Branch Kishwaukee River	CP374-8.4	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0033			South Branch Kishwaukee River	CP374-12.2	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0034			South Branch Kishwaukee River	CP374-13.1	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0035			South Branch Kishwaukee River	CP374-15.9	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0036			Big Rock Creek	CP408-1.9	Line 14	New nomenclature
Great Lakes	GLRCP0037			Big Rock Creek	CP408-2.7	Line 14	New nomenclature
Great Lakes	GLRCP0038			Big Rock Creek	CP408-4.2	Line 14	New nomenclature
Great Lakes	GLRCP0039			Big Rock Creek	CP408-6.1	Line 14	New nomenclature
Great Lakes	GLRCP0040			Big Rock Creek	CP408-8.6	Line 14	New nomenclature
Great Lakes	GLRCP0041			Little Rock Creek	CP415-4.5	Line 14	New nomenclature
Great Lakes	GLRCP0042			Little Rock Creek	CP415-5.8	Line 14	New nomenclature
Great Lakes	GLRCP0043			Fox River	CP419-1.0	Line 14	New nomenclature
Great Lakes	GLRCP0044			Fox River	CP419-4.4	Line 14	New nomenclature
Great Lakes	GLRCP0045			Fox River	CP419-6.2	Line 14	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0046	[redacted]	[redacted]	Fox River	CP419-9.5	Line 14	New nomenclature
Great Lakes	GLRCP0047	[redacted]	[redacted]	Fox River	CP419-11.8	Line 14	New nomenclature
Great Lakes	GLRCP0048	[redacted]	[redacted]	Fox River	CP419-14.1	Line 14	New nomenclature
Great Lakes	GLRCP0049	[redacted]	[redacted]	Fox River	CP419-20.3	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0050	[redacted]	[redacted]	Fox River	CP421-4.5	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0051	[redacted]	[redacted]	Fox River	CP421-7.3	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0052	[redacted]	[redacted]	Fox River	CP421-11.9	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0053	[redacted]	[redacted]	Little Rock Creek	CP415-1.9	Line 14	New nomenclature
Great Lakes	GLRCP0054	[redacted]	[redacted]	Des Plaines River-Chicago Ship Canal	CP425-1.2	Line 6A	New nomenclature
Great Lakes	GLRCP0055	[redacted]	[redacted]	Des Plaines River-Chicago Ship Canal	CP425-3.7	Line 6A	New nomenclature
Great Lakes	GLRCP0056	[redacted]	[redacted]	Des Plaines River-Chicago Ship Canal	CP425-4.8	Line 6A	New nomenclature
Great Lakes	GLRCP0057	[redacted]	[redacted]	Chicago Ship Canal/Des Plaines	CP425-5.5	Line 6A	New nomenclature
Great Lakes	GLRCP0058	[redacted]	[redacted]	Des Plaines River-Chicago Ship Canal	CP425-8.0	Line 6A	New nomenclature
Great Lakes	GLRCP0059	[redacted]	[redacted]	Des Plaines River-Chicago Ship Canal	CP425-10.3	Line 14	New nomenclature
Great Lakes	GLRCP0060	[redacted]	[redacted]	Des Plaines River-Chicago Ship Canal	CP425-18.5 / CP445-6.5	Line 14	New nomenclature
Great Lakes	GLRCP0061	[redacted]	[redacted]	Des Plaines River-Chicago Ship Canal	CP445-9.5	Line 14	New nomenclature
Great Lakes	GLRCP0063	[redacted]	[redacted]	Kankakee River		Line 13	Not originally included in Appendix D
Great Lakes	GLRCP0064	[redacted]	[redacted]	Des Plaines River-Chicago Ship Canal		Line 13	Not originally included in Appendix D
Great Lakes	GLRCP0067	[redacted]	[redacted]	Fox River	CP421-13.0	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0068	[redacted]	[redacted]	Illinois River	CP432-4.3	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0069	[redacted]	[redacted]	Fox River	CP421-19.0 / CP432-10.3	Line 13 & Line 61	New nomenclature and duplicated control points

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Control Points with Proposed Changes							
Region	**CP_ID**	**Longitude**	**Latitude**	**WaterCrossing**	**DOJ_CP_Names**	**Upstream Pipelines**	**Reason for Change**
Great Lakes	GLRCP0070	[redacted]		Fox River	CP421-21.2 / CP432-12.4	Line 13 & Line 61	New nomenclature
Great Lakes	GLRCP0086			Kankakee River	CP 37.59 - 8.26	Line 62 & Line 78	New nomenclature
Great Lakes	GLRCP0087			Kankakee River	CP 37.59 - 9.91	Line 13	New nomenclature
Great Lakes	GLRCP0088			Kankakee River	CP 37.59 - 11.41	Line 13	New nomenclature
Great Lakes	GLRCP0089			Kankakee River	CP 37.59 - 14.13	Line 13	New nomenclature
Great Lakes	GLRCP0090			Kankakee River	CP 37.59 - 15.67 / CP37-15.7N / CP425-24.0 / CP445-12.0	Line 13	New nomenclature and duplicated control points
Great Lakes	GLRCP0091			Kankakee River	CP 37.59 - 18.67	Line 13	New nomenclature
Great Lakes	GLRCP0101			Aux Sable Creek	CP434-4.1	Line 14	New nomenclature
Great Lakes	GLRCP0102			Aux Sable Creek	CP434-7.0	Line 14	New nomenclature
Great Lakes	GLRCP0103			Aux Sable Creek	CP434-10.0	Line 14	New nomenclature
Great Lakes	GLRCP0104			Aux Sable Creek	CP434-14.6	Line 14	New nomenclature
Great Lakes	GLRCP0105			DuPage River	CP418-1.8	Line 6A	New nomenclature
Great Lakes	GLRCP0106			DuPage River	CP418-3.6	Line 6A	New nomenclature
Great Lakes	GLRCP0107			DuPage River	CP418-5.8	Line 6A	New nomenclature
Great Lakes	GLRCP0108			DuPage River	CP418-9.1	Line 6A	New nomenclature
Great Lakes	GLRCP0109			DuPage River	CP418-13.3	Line 6A	New nomenclature
Great Lakes	GLRCP0110			DuPage River	CP440-1.4	Line 14	New nomenclature
Great Lakes	GLRCP0111			Rock Run	CP441-4.7	Line 14	New nomenclature
Great Lakes	GLRCP0112			DuPage River	CP440-6.1	Line 14	New nomenclature
Great Lakes	GLRCP0113			Lily Cache Creek	CP420-2.0	Line 6A	New nomenclature
Great Lakes	GLRCP0114			Lily Cache Creek	CP420-3.1	Line 6A	New nomenclature
Great Lakes	GLRCP0115			Waubonsie Creek	CP409-0.9	Line 6A	New nomenclature
Great Lakes	GLRCP0116			Waubonsie Creek	CP409-1.9	Line 6A	New nomenclature
Great Lakes	GLRCP0117			Waubonsie Creek	CP409-5.1	Line 6A	New nomenclature
Great Lakes	GLRCP0118			Waubonsie Creek	CP409-7.1	Line 6A	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]					
Great Lakes	GLRCP0119			Waubonsie Creek	CP409-9.2	Line 6A	New nomenclature
Great Lakes	GLRCP0120			West Branch DuPage River	CP401-1.9	Line 6A	New nomenclature
Great Lakes	GLRCP0121			West Branch DuPage River	CP401-3.3	Line 6A	New nomenclature
Great Lakes	GLRCP0122			West Branch DuPage River	CP401-4.2	Line 6A	New nomenclature
Great Lakes	GLRCP0123			West Branch DuPage River	CP401-5.4	Line 6A	New nomenclature
Great Lakes	GLRCP0124			Boone Creek		Line 6A	Not originally included in Appendix D
Great Lakes	GLRCP0125			Boone Creek	CP365-2.1	Line 6A	New nomenclature
Great Lakes	GLRCP0126			Boone Creek	CP365-3.4	Line 6A	New nomenclature
Great Lakes	GLRCP0127			Boone Creek	CP365-5.2	Line 6A	New nomenclature
Great Lakes	GLRCP0128			Boone Creek	CP365-5.3N	Line 6A	New nomenclature
Great Lakes	GLRCP0129			Boone Creek	CP365-7.8	Line 6A	New nomenclature
Great Lakes	GLRCP0130			Boone Creek		Line 6A	Not originally included in Appendix D
Great Lakes	GLRCP0131			Boone Creek	CP365-9.9	Line 6A	New nomenclature
Great Lakes	GLRCP0132			Boone Creek	CP365-14.6	Line 6A	New nomenclature
Great Lakes	GLRCP0133			Boone Creek	CP365-16.2	Line 6A	New nomenclature
Great Lakes	GLRCP0134			Boone Creek	CP365-20.3	Line 6A	New nomenclature
Great Lakes	GLRCP0135			Fox River	CP377-3.3	Line 6A	New nomenclature
Great Lakes	GLRCP0136			Fox River		Line 6A	Not originally included in Appendix D
Great Lakes	GLRCP0137			Fox River	CP377-4.9	Line 6A	New nomenclature
Great Lakes	GLRCP0138			Fox River	CP377-6.3	Line 6A	New nomenclature
Great Lakes	GLRCP0139			Fox River	CP377-7.4	Line 6A	New nomenclature
Great Lakes	GLRCP0140			Fox River	CP377-8.2	Line 6A	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0141	[redacted]		Fox River	CP377-9.3	Line 6A	New nomenclature
Great Lakes	GLRCP0142			Fox River	CP377-11.5	Line 6A	New nomenclature
Great Lakes	GLRCP0143			Fox River	CP377-12.1	Line 6A	New nomenclature
Great Lakes	GLRCP0144			Fox River	CP377-13.5	Line 6A	New nomenclature
Great Lakes	GLRCP0145			Fox River	CP377-16.3	Line 6A	New nomenclature
Great Lakes	GLRCP0146			Poplar Creek	CP388-3.6	Line 6A	New nomenclature
Great Lakes	GLRCP0147			Fox River	CP377-20.1	Line 6A	New nomenclature
Great Lakes	GLRCP0148			Fox River	CP377-25.1E	Line 6A	New nomenclature
Great Lakes	GLRCP0149			Fox River	CP377-25.1W	Line 6A	New nomenclature
Great Lakes	GLRCP0150			Newman Creek	CP357-5.4	Line 6A	New nomenclature
Great Lakes	GLRCP0151			Newman Creek	CP357-3.3	Line 6A	New nomenclature
Great Lakes	GLRCP0152			Newman Creek	CP357-4.6	Line 6A	New nomenclature
Great Lakes	GLRCP0153			Hickory Creek	CP447-2.0	Line 64 & Line 6A	New nomenclature
Great Lakes	GLRCP0154			Hickory Creek	CP447-3.1	Line 64 & Line 6A	New nomenclature
Great Lakes	GLRCP0155			Hickory Creek	CP447-4.9	Line 64 & Line 6A	New nomenclature
Great Lakes	GLRCP0156			Hickory Creek	CP447-6.3	Line 6A	New nomenclature
Great Lakes	GLRCP0157			Hickory Creek	CP447-8.9	Line 6A	New nomenclature
Great Lakes	GLRCP0158			Hickory Creek	CP447-11.5	Line 14	New nomenclature
Great Lakes	GLRCP0159			Hickory Creek	CP447-12.9	Line 14	New nomenclature
Great Lakes	GLRCP0160			Marley Creek	CP438-1.6	Line 6A	New nomenclature
Great Lakes	GLRCP0161			Marley Creek	CP438-2.5	Line 6A	New nomenclature
Great Lakes	GLRCP0162			Marley Creek	CP438-3.5X	Line 6A	New nomenclature

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Control Points with Proposed Changes							
Region	**CP_ID**	**Longitude**	**Latitude**	**WaterCrossing**	**DOJ_CP_Names**	**Upstream Pipelines**	**Reason for Change**
		[redacted]					
Great Lakes	GLRCP0163			Marley Creek		Line 14	Not originally included in Appendix D
Great Lakes	GLRCP0164			Marley Creek	CP438-4.6	Line 14	New nomenclature
Great Lakes	GLRCP0165			Thorn Creek	CP454-0.5	Line 64 & Line 6A	New nomenclature
Great Lakes	GLRCP0166			Bishop Ford HWY DD	CP 70.56 - 0.09	Line 78	New nomenclature
Great Lakes	GLRCP0167			Bishop Ford DD	CP 70.56 - 0.88 / CP 71.24 - 0.09	Line 78	New nomenclature and duplicated control points
Great Lakes	GLRCP0168			Bishop Ford DD	CP 71.24 - 0.60 / CP 71.56 - 0.26	Line 78	New nomenclature and duplicated control points
Great Lakes	GLRCP0169			Bishop Ford DD	CP 70.56 - 2.31 / CP 71.56 - 1.25	Line 64, Line 6A & Line 78	New nomenclature and duplicated control points
Great Lakes	GLRCP0170			Bishop Ford DD	CP 71.24 - 1.63	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0171			Deer Creek	CP 72.87 - 0.64	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0172			Bishop Ford DD	CP 71.24 - 2.73 / CP 71.56 - 2.33	Line 64, Line 6A & Line 78	New nomenclature and duplicated control points
Great Lakes	GLRCP0173			Deer Creek	CP 70.56 - 4.22 / CP 72.87 - 1.89 / CP458-2.0	Line 64, Line 6A & Line 78	New nomenclature and duplicated control points
Great Lakes	GLRCP0174			Deer Creek	CP458-3.5	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0175			Deer Creek	CP458-4.3	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0176			Deer Creek	CP 71.56 - 5.33 / CP 72.87 - 5.33 / CP458-6.4	Line 64, Line 6A & Line 78	New nomenclature and duplicated control points
Great Lakes	GLRCP0177			Deer Creek	CP 72.87 - 8.48	Line 78	New nomenclature
Great Lakes	GLRCP0178			North Creek	CP 74.71 - 0.73	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0179			North Creek	CP 74.71 - 2.23	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0180			North Creek	CP 74.71 - 4.01	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0181			North Creek	CP 74.71 - 4.76	Line 64, Line 6A &	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]				Line 78	
Great Lakes	GLRCP0182			Plum Creek	CP 76.10 - 0.06	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0183			Plum Creek	CP 76.10 - 0.86	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0184			Plum Creek	CP 76.10 - 1.59 / CP 76.80 - 0.43 / CP 76.80 - 1.23 / CP462-1.5	Line 64, Line 6A & Line 78	New nomenclature and duplicated control points
Great Lakes	GLRCP0185			Deer Creek	CP 76.80 - 2.27	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0186			Plum Creek	CP462-2.4	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0187			Plum Creek	CP 76.10 - 2.30	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0188			Plum Creek	CP462-3.1	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0189			Plum Creek	CP 76.80 - 4.15 / CP462-4.2	Line 64, Line 6A & Line 78	New nomenclature and duplicated control points
Great Lakes	GLRCP0190			Deer Creek		Line 64, Line 6A & Line 78	Not originally included in Appendix D
Great Lakes	GLRCP0191			Spring Creek	CP 79.07 - 0.13	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0192			Spring Creek	CP 79.07 - 0.38	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0193			Spring Creek	CP 79.07 - 1.38	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0194			Spring Creek	CP 79.07 - 2.22	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0195			Oak Street Pond	CP 79.67 - 0.01	Line 64, Line 6A & Line 78	New nomenclature
Great Lakes	GLRCP0196			Turkey Creek	CP471-2.7	Line 6B	New nomenclature
Great Lakes	GLRCP0197			Turkey Creek	CP471-4.4	Line 6B	New nomenclature
Great Lakes	GLRCP0198			Salt Creek	CP484-2.7	Line 6B	New nomenclature
Great Lakes	GLRCP0199			Salt Creek	CP484-6.1	Line 6B	New nomenclature
Great Lakes	GLRCP0200			Salt Creek	CP484-8.7	Line 6B	New nomenclature
Great Lakes	GLRCP0201			Salt Creek		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0202			Brandywine Creek	CP536-1.6	Line 6B	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0203	[redacted]		Brandywine Creek	CP536-2.9	Line 6B	New nomenclature
Great Lakes	GLRCP0204			Saint Joseph River	CP533-2.0	Line 6B	New nomenclature
Great Lakes	GLRCP0205			Saint Joseph River	CP533-2.7	Line 6B	New nomenclature
Great Lakes	GLRCP0206			Saint Joseph River	CP533-7.0	Line 6B	New nomenclature
Great Lakes	GLRCP0207			Saint Joseph River	CP533-11.2	Line 6B	New nomenclature
Great Lakes	GLRCP0208			Saint Joseph River	CP533-21.0	Line 6B	New nomenclature
Great Lakes	GLRCP0209			Rocky River	CP570-4.2	Line 6B	New nomenclature
Great Lakes	GLRCP0210			Rocky River	CP570-6.0	Line 6B	New nomenclature
Great Lakes	GLRCP0211			Rocky River	CP570-7.0N	Line 6B	New nomenclature
Great Lakes	GLRCP0212			Rocky River	CP570-7.1S	Line 6B	New nomenclature
Great Lakes	GLRCP0213			Portage River	CP577-2.8	Line 6B	New nomenclature
Great Lakes	GLRCP0214			Portage River	CP577-4.3	Line 6B	New nomenclature
Great Lakes	GLRCP0215			Portage River	CP577-5.9	Line 6B	New nomenclature
Great Lakes	GLRCP0216			Kalamazoo River	CP611-1.3	Line 6B	New nomenclature
Great Lakes	GLRCP0217			Kalamazoo River	CP611-1.6	Line 6B	New nomenclature
Great Lakes	GLRCP0218			South Branch Rice Creek	CP618-9.3	Line 6B	New nomenclature
Great Lakes	GLRCP0219			Kalamazoo River	CP611-4.3	Line 6B	New nomenclature
Great Lakes	GLRCP0220			Kalamazoo River	CP611-6.8	Line 6B	New nomenclature
Great Lakes	GLRCP0221			Kalamazoo River	CP611-7.1	Line 6B	New nomenclature
Great Lakes	GLRCP0222			Kalamazoo River	CP611-7.4	Line 6B	New nomenclature
Great Lakes	GLRCP0223			Kalamazoo River	CP611-7.8	Line 6B	New nomenclature
Great Lakes	GLRCP0224			Kalamazoo River	CP611-9.4	Line 6B	New nomenclature
Great Lakes	GLRCP0225			Kalamazoo River	CP611-11.1	Line 6B	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]					
Great Lakes	GLRCP0226			Kalamazoo River	CP611-11.4	Line 6B	New nomenclature
Great Lakes	GLRCP0227			Kalamazoo River	CP611-11.9	Line 6B	New nomenclature
Great Lakes	GLRCP0228			Kalamazoo River	CP611-13.3	Line 6B	New nomenclature
Great Lakes	GLRCP0229			Kalamazoo River	CP611-14.1	Line 6B	New nomenclature
Great Lakes	GLRCP0230			Kalamazoo River	CP611-14.6	Line 6B	New nomenclature
Great Lakes	GLRCP0231			Kalamazoo River	CP611-15.1	Line 6B	New nomenclature
Great Lakes	GLRCP0232			Kalamazoo River	CP611-15.3	Line 6B	New nomenclature
Great Lakes	GLRCP0233			Kalamazoo River	CP611-16.8	Line 6B	New nomenclature
Great Lakes	GLRCP0234			Kalamazoo River	CP611-17.4	Line 6B	New nomenclature
Great Lakes	GLRCP0235			Kalamazoo River	CP611-19.6	Line 6B	New nomenclature
Great Lakes	GLRCP0236			Kalamazoo River	CP611-20.1	Line 6B	New nomenclature
Great Lakes	GLRCP0237			Kalamazoo River	CP611-20.7	Line 6B	New nomenclature
Great Lakes	GLRCP0238			Kalamazoo River	CP611-21.0	Line 6B	New nomenclature
Great Lakes	GLRCP0239			Kalamazoo River	CP611-21.2	Line 6B	New nomenclature
Great Lakes	GLRCP0240			Kalamazoo River	CP611-21.4	Line 6B	New nomenclature
Great Lakes	GLRCP0241			Kalamazoo River	CP611-22.5	Line 6B	New nomenclature
Great Lakes	GLRCP0242			Kalamazoo River	CP611-23.3	Line 6B	New nomenclature
Great Lakes	GLRCP0243			Kalamazoo River	CP611-26.6	Line 6B	New nomenclature
Great Lakes	GLRCP0244			Kalamazoo River	CP611-28.9	Line 6B	New nomenclature
Great Lakes	GLRCP0245			Kalamazoo River	CP611-30.2	Line 6B	New nomenclature
Great Lakes	GLRCP0246			Kalamazoo River	CP611-30.8	Line 6B	New nomenclature
Great Lakes	GLRCP0247			Kalamazoo River	CP611-31.3	Line 6B	New nomenclature
Great Lakes	GLRCP0248			Kalamazoo River	CP611-32.0	Line 6B	New nomenclature

Control Points with Proposed Changes

Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]	[redacted]				
Great Lakes	GLRCP0249	[redacted]	[redacted]	Kalamazoo River	CP611-37.1	Line 6B	New nomenclature
Great Lakes	GLRCP0250	[redacted]	[redacted]	Kalamazoo River	CP611-38.5	Line 6B	New nomenclature
Great Lakes	GLRCP0251	[redacted]	[redacted]	Kalamazoo River	CP611-39.8	Line 6B	New nomenclature
Great Lakes	GLRCP0252	[redacted]	[redacted]	Kalamazoo River	CP611-40.6	Line 6B	New nomenclature
Great Lakes	GLRCP0253	[redacted]	[redacted]	Kalamazoo River	CP611-41.9	Line 6B	New nomenclature
Great Lakes	GLRCP0254	[redacted]	[redacted]	South Branch Rice Creek	CP618-2.9	Line 6B	New nomenclature
Great Lakes	GLRCP0255	[redacted]	[redacted]	South Branch Rice Creek	CP618-4.3	Line 6B	New nomenclature
Great Lakes	GLRCP0256	[redacted]	[redacted]	South Branch Rice Creek	CP618-5.3	Line 6B	New nomenclature
Great Lakes	GLRCP0257	[redacted]	[redacted]	South Branch Rice Creek	CP618-7.4	Line 6B	New nomenclature
Great Lakes	GLRCP0258	[redacted]	[redacted]	South Branch Rice Creek	CP618-8.9	Line 6B	New nomenclature
Great Lakes	GLRCP0259	[redacted]	[redacted]	Grand River	CP634--3.9	Line 6B	New nomenclature
Great Lakes	GLRCP0260	[redacted]	[redacted]	Grand River	CP634-0.3	Line 6B	New nomenclature
Great Lakes	GLRCP0261	[redacted]	[redacted]	Grand River	CP634-3.4	Line 6B	New nomenclature
Great Lakes	GLRCP0262	[redacted]	[redacted]	Grand River	CP634-6.1	Line 6B	New nomenclature
Great Lakes	GLRCP0263	[redacted]	[redacted]	Grand River	CP634-6.4	Line 6B	New nomenclature
Great Lakes	GLRCP0264	[redacted]	[redacted]	Grand River	CP634-8.5	Line 6B	New nomenclature
Great Lakes	GLRCP0265	[redacted]	[redacted]	Grand River	CP634-10.4	Line 6B	New nomenclature
Great Lakes	GLRCP0266	[redacted]	[redacted]	Middle Branch Cedar River	CP662-2.0	Line 6B	New nomenclature
Great Lakes	GLRCP0267	[redacted]	[redacted]	Red Cedar River	CP665-2.0	Line 6B	New nomenclature
Great Lakes	GLRCP0268	[redacted]	[redacted]	Red Cedar River	CP665-3.3	Line 6B	New nomenclature
Great Lakes	GLRCP0269	[redacted]	[redacted]	Red Cedar River	CP665-4.4	Line 6B	New nomenclature
Great Lakes	GLRCP0270	[redacted]	[redacted]	Middle Branch Cedar River	CP662-4.2	Line 6B	New nomenclature

Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]	[redacted]				
Great Lakes	GLRCP0271	[redacted]	[redacted]	Middle Branch Cedar River	CP662-5.2	Line 6B	New nomenclature
Great Lakes	GLRCP0272	[redacted]	[redacted]	Middle Branch Cedar River	CP662-7.1	Line 6B	New nomenclature
Great Lakes	GLRCP0273	[redacted]	[redacted]	Shiawassee River South Branch	CP668-5.6	Line 6B	New nomenclature
Great Lakes	GLRCP0274	[redacted]	[redacted]	Shiawassee River South Branch	CP668-8.0	Line 6B	New nomenclature
Great Lakes	GLRCP0275	[redacted]	[redacted]	Shiawassee River South Branch	CP668-13.3	Line 6B	New nomenclature
Great Lakes	GLRCP0276	[redacted]	[redacted]	Shiawassee River South Branch	CP668-14.9	Line 6B	New nomenclature
Great Lakes	GLRCP0277	[redacted]	[redacted]	Shiawassee River South Branch	CP668-21.6	Line 6B	New nomenclature
Great Lakes	GLRCP0278	[redacted]	[redacted]	North Ore Creek	CP679-0.8	Line 6B	New nomenclature
Great Lakes	GLRCP0279	[redacted]	[redacted]	North Ore Creek	CP679-2.2	Line 6B	New nomenclature
Great Lakes	GLRCP0280	[redacted]	[redacted]	North Ore Creek	CP679-3.1	Line 6B	New nomenclature
Great Lakes	GLRCP0281	[redacted]	[redacted]	North Ore Creek	CP679-4.4	Line 6B	New nomenclature
Great Lakes	GLRCP0282	[redacted]	[redacted]	Shiawassee River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0283	[redacted]	[redacted]	Shiawassee River	CP691-0.0	Line 6B	New nomenclature
Great Lakes	GLRCP0284	[redacted]	[redacted]	Buckhorn Creek	CP689-3.1	Line 6B	New nomenclature
Great Lakes	GLRCP0285	[redacted]	[redacted]	Buckhorn Creek	CP689-4.0	Line 6B	New nomenclature
Great Lakes	GLRCP0286	[redacted]	[redacted]	Buckhorn Creek	CP689-5.4	Line 6B	New nomenclature
Great Lakes	GLRCP0287	[redacted]	[redacted]	South Branch Flint River	CP709-6.7	Line 6B	New nomenclature
Great Lakes	GLRCP0288	[redacted]	[redacted]	South Branch Flint River	CP709-9.4	Line 6B	New nomenclature
Great Lakes	GLRCP0289	[redacted]	[redacted]	South Branch Flint River	CP709-11.5	Line 6B	New nomenclature
Great Lakes	GLRCP0290	[redacted]	[redacted]	South Branch Flint River	CP709-14.2	Line 6B	New nomenclature
Great Lakes	GLRCP0291	[redacted]	[redacted]	South Branch Flint River	CP709-18.2	Line 6B	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0292	[redacted]		North Branch Clinton River	CP723-9.8	Line 6B	New nomenclature
Great Lakes	GLRCP0293			North Branch Clinton River	CP723-14.2	Line 6B	New nomenclature
Great Lakes	GLRCP0294			North Branch Clinton River	CP723-16.6	Line 6B	New nomenclature
Great Lakes	GLRCP0295			North Branch Clinton River	CP723-17.4	Line 6B	New nomenclature
Great Lakes	GLRCP0296			North Branch Clinton River	CP723-21.7	Line 6B	New nomenclature
Great Lakes	GLRCP0297			Belle River	CP737-8.4	Line 6B	New nomenclature
Great Lakes	GLRCP0298			Belle River	CP737-13.7	Line 6B	New nomenclature
Great Lakes	GLRCP0299			Belle River	CP737-20.9	Line 6B	New nomenclature
Great Lakes	GLRCP0300			Belle River	CP737-27.5	Line 6B	New nomenclature
Great Lakes	GLRCP0301			Pine River	CP1718-8.3	Line 5	New nomenclature
Great Lakes	GLRCP0302			Pine River	CP1718-10.5	Line 5	New nomenclature
Great Lakes	GLRCP0303			Pine River	CP1718-13.6	Line 5	New nomenclature
Great Lakes	GLRCP0304			Pine River	CP1718-16.3	Line 5	New nomenclature
Great Lakes	GLRCP0305			Pine River	CP1718-18.9	Line 5	New nomenclature
Great Lakes	GLRCP0306			Pine River	CP1718-21.9	Line 5	New nomenclature
Great Lakes	GLRCP0307			Pine River	CP1718-24.4	Line 5	New nomenclature
Great Lakes	GLRCP0308			Pine River	CP1718-26.2	Line 5	New nomenclature
Great Lakes	GLRCP0309			Pine River	CP1718-30.3	Line 5	New nomenclature
Great Lakes	GLRCP0310			Pine River	CP1718-31.5	Line 5	New nomenclature
Great Lakes	GLRCP0311			Pine River	CP745-1.1	Line 6B	New nomenclature
Great Lakes	GLRCP0312			Pine River	CP745-3.7	Line 6B	New nomenclature
Great Lakes	GLRCP0313			Pine River	CP745-5.7	Line 6B	New nomenclature
Great Lakes	GLRCP0314			Pine River	CP745-8.7	Line 6B	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0315	[redacted]		Pine River	CP745-13.3	Line 6B	New nomenclature
Great Lakes	GLRCP0316			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0317			St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0318			St. Clair River	CP1735-0.7	Line 5, Line 6 & Line 6B	New nomenclature
Great Lakes	GLRCP0319			St. Clair River	CP1735-6.3	Line 5, Line 6 & Line 6B	New nomenclature
Great Lakes	GLRCP0320			St. Clair River	CP1735-6.7	Line 6B	New nomenclature
Great Lakes	GLRCP0321			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0322			St. Clair River	CP1735-8.5	Line 6B	New nomenclature
Great Lakes	GLRCP0323			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0324			St. Clair River	CP1735-14.2	Line 6B	New nomenclature
Great Lakes	GLRCP0325			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0326			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0327			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0328			St. Clair River	CP1735-15.4	Line 6B	New nomenclature
Great Lakes	GLRCP0329			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0330			St. Clair River	CP1735-19.3	Line 6B	New nomenclature
Great Lakes	GLRCP0331			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0332			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0333			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0334			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0335			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0336			St. Clair River		Line 6B	Not originally included in Appendix D

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0337	[redacted]		St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0338			St. Clair River	CP1735-22.0	Line 6B	New nomenclature
Great Lakes	GLRCP0339			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0340			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0341			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0342			St. Clair River	CP1735-23.4	Line 6B	New nomenclature
Great Lakes	GLRCP0343			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0344			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0345			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0346			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0347			St. Clair River	CP1735-24.0	Line 6B	New nomenclature
Great Lakes	GLRCP0348			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0349			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0350			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0351			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0352			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0353			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0354			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0355			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0356			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0357			St. Clair River	CP1735-27.9	Line 6B	New nomenclature
Great Lakes	GLRCP0358			St. Clair River	CP1735-26.1	Line 6B	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]	[redacted]				
Great Lakes	GLRCP0359	[redacted]	[redacted]	St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0360	[redacted]	[redacted]	St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0361	[redacted]	[redacted]	St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0362	[redacted]	[redacted]	St. Clair River	CP1735-30.0	Line 6B	New nomenclature
Great Lakes	GLRCP0363	[redacted]	[redacted]	St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0364	[redacted]	[redacted]	St. Clair River	CP1735-30.4	Line 6B	New nomenclature
Great Lakes	GLRCP0365	[redacted]	[redacted]	St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0366	[redacted]	[redacted]	St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0367	[redacted]	[redacted]	St. Clair River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0368	[redacted]	[redacted]	St. Clair River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0369	[redacted]	[redacted]	St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0370	[redacted]	[redacted]	St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0371	[redacted]	[redacted]	St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0372	[redacted]	[redacted]	St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0373	[redacted]	[redacted]	St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0374	[redacted]	[redacted]	St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0375	[redacted]	[redacted]	St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0376	[redacted]	[redacted]	St. Clair River	CP1735-30.1	Line 5 & Line 6B	New nomenclature
Great Lakes	GLRCP0377	[redacted]	[redacted]	St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0378	[redacted]	[redacted]	St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0379	[redacted]	[redacted]	St. Clair River		Line 5 & Line 6B	Not originally included

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]					in Appendix D
Great Lakes	GLRCP0380			St. Clair River		Line 5 & Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0394			Buffalo River	CP1951-6.4	Line 10	New nomenclature
Great Lakes	GLRCP0395			Buffalo River	CP1951-7.8	Line 10	New nomenclature
Great Lakes	GLRCP0396			Niagara River - East Branch	CP1933-2.4	Line 10	New nomenclature
Great Lakes	GLRCP0397			Niagara River - West Branch	CP1928-5.0 / CP1933-7.8	Line 10	New nomenclature and duplicated control points
Great Lakes	GLRCP0398			Niagara River - West Branch	CP1928-15.3 / CP1933-21.9	Line 10	New nomenclature and duplicated control points
Great Lakes	GLRCP0399			Niagara River - West Branch	CP1928-21.6 / CP1933-28.0	Line 10	New nomenclature and duplicated control points
Great Lakes	GLRCP0400			Niagara River - West Branch	CP1928-4.0	Line 10	New nomenclature
Great Lakes	GLRCP0401			St. Clair River		Line 6B	Not originally included in Appendix D
Great Lakes	GLRCP0402			Montreal River	CP1189-0.7W	Line 5	New nomenclature
Great Lakes	GLRCP0404			Welch Creek	CP1191-0.3B	Line 5	New nomenclature
Great Lakes	GLRCP0405			Welch Creek	CP1191-2.4B	Line 5	New nomenclature
Great Lakes	GLRCP0406			Siemens Creek	CP1194-0.1W	Line 5	New nomenclature
Great Lakes	GLRCP0407			Siemens Creek	CP1194-3.0B	Line 5	New nomenclature
Great Lakes	GLRCP0408			Siemens Creek	CP1194-4.1B	Line 5	New nomenclature
Great Lakes	GLRCP0409			Siemens Creek	CP1194-5.1B	Line 5	New nomenclature
Great Lakes	GLRCP0410			Siemens Creek	CP1194-6.2B	Line 5	New nomenclature
Great Lakes	GLRCP0411			Kallander Creek	CP1197-0.8B / CP1200-3.8B / CP1203-7.5B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0412			Kallander Creek	CP1197-2.0B / CP1200-	Line 5	New nomenclature and

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]			4.8B / CP1203-8.6B		duplicated control points
Great Lakes	GLRCP0413			Kallander Creek	CP1200-9.0W / CP1203-12.8W	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0414			Kallander Creek	CP1197-18.0W / CP1200-20.6W / CP1203-24.4W	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0415			Black River	CP1200-0.4B	Line 5	New nomenclature
Great Lakes	GLRCP0416			Planter Creek	CP1203-4.3S	Line 5	New nomenclature
Great Lakes	GLRCP0417			Planter Creek	CP1203-0.3B	Line 5	New nomenclature
Great Lakes	GLRCP0418			Planter Creek	CP1203-2.6W	Line 5	New nomenclature
Great Lakes	GLRCP0419			Planter Creek	CP1203-3.1B	Line 5	New nomenclature
Great Lakes	GLRCP0420			Presque Isle River	CP1217-1.6W	Line 5	New nomenclature
Great Lakes	GLRCP0421			Presque Isle River	CP1217-2.1W	Line 5	New nomenclature
Great Lakes	GLRCP0422			Presque Isle River	CP1217-3.4B	Line 5	New nomenclature
Great Lakes	GLRCP0423			Presque Isle River	CP1217-5.0B	Line 5	New nomenclature
Great Lakes	GLRCP0424			Presque Isle River	CP1217-18.1B	Line 5	New nomenclature
Great Lakes	GLRCP0427			Presque Isle River	CP1217-28.0B	Line 5	New nomenclature
Great Lakes	GLRCP0428			Presque Isle River	CP1217-36.2B	Line 5	New nomenclature
Great Lakes	GLRCP0429			Presque Isle River	CP1217-37.1W	Line 5	New nomenclature
Great Lakes	GLRCP0430			Slate River	CP1222-4.0W / CP1224-4.4W	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0431			Cisco Branch Ontonagon River	CP1232-0.7B	Line 5	New nomenclature
Great Lakes	GLRCP0432			Cisco Branch Ontonagon River	CP1232-7.0B	Line 5	New nomenclature
Great Lakes	GLRCP0433			Cisco Branch Ontonagon River	CP1232-17.3B	Line 5	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0435	[redacted]		Cisco Branch Ontonagon River	CP1232-39.2E	Line 5	New nomenclature
Great Lakes	GLRCP0436			Middle Branch Ontonagon River	CP1237-1.0B	Line 5	New nomenclature
Great Lakes	GLRCP0437			Middle Branch Ontonagon River	CP1237-5.4B	Line 5	New nomenclature
Great Lakes	GLRCP0438			Middle Branch Ontonagon River	CP1237-10.4S	Line 5	New nomenclature
Great Lakes	GLRCP0439			Middle Branch Ontonagon River	CP1237-14.4B / CP1244-5.1B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0440			Middle Branch Ontonagon River	CP1237-17.1B / CP1244-7.8B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0441			Middle Branch Ontonagon River	CP1237-18.9B / CP1244-9.6B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0442			Middle Branch Ontonagon River	CP1237-20.2E / CP1244-10.8E	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0443			Middle Branch Ontonagon River	CP1237-26.5B / CP1244-17.1B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0444			Duck Creek	CP1244-0.7B	Line 5	New nomenclature
Great Lakes	GLRCP0445			Duck Creek	CP1244-1.3B	Line 5	New nomenclature
Great Lakes	GLRCP0446			S. Branch Paint River	CP1254-0.3B	Line 5	New nomenclature
Great Lakes	GLRCP0447			S. Branch Paint River	CP1254-2.0W	Line 5	New nomenclature
Great Lakes	GLRCP0449			S. Branch Paint River	CP1254-5.2B	Line 5	New nomenclature
Great Lakes	GLRCP0450			S. Branch Paint River	CP1254-6.9B	Line 5	New nomenclature
Great Lakes	GLRCP0451			S. Branch Paint River	CP1254-11.1B	Line 5	New nomenclature
Great Lakes	GLRCP0453			S. Branch Paint River	CP1254-16.0B	Line 5	New nomenclature
Great Lakes	GLRCP0454			S. Branch Paint River	CP1254-18.7B / CP1260-6.7B	Line 5	New nomenclature and duplicated control points

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0455	[redacted]		S. Branch Paint River	CP1254-19.6B / CP1260-7.6B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0456			S. Branch Paint River	CP1254-20.2E / CP1260-8.2E	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0457			S. Branch Paint River	CP1254-22.2B / CP1260-10.2B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0458			S. Branch Paint River	CP1254-24.7N / CP1260-12.4W	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0459			S. Branch Paint River	CP1254-26.8B / CP1260-14.7B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0460			S. Branch Paint River	CP1254-27.7B / CP1260-15.6B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0461			Cooks Run	CP1260-19.6N	Line 5	New nomenclature
Great Lakes	GLRCP0463			Cooks Run	CP1260-0.7B	Line 5	New nomenclature
Great Lakes	GLRCP0464			Cooks Run	CP1260-2.2S	Line 5	New nomenclature
Great Lakes	GLRCP0465			Cooks Run	CP1260-3.0N	Line 5	New nomenclature
Great Lakes	GLRCP0467			Cooks Run	CP1260-4.8B	Line 5	New nomenclature
Great Lakes	GLRCP0468			S. Br. Iron River	CP1268-0.3B	Line 5	New nomenclature
Great Lakes	GLRCP0469			S. Br. Iron River	CP1268-0.8B	Line 5	New nomenclature
Great Lakes	GLRCP0470			S. Br. Iron River	CP1268-2.0B / CP1270-0.8B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0471			S. Br. Iron River	CP1268-4.7B / CP1270-3.5B / CP1272-1.0B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0472			S. Br. Iron River	CP1268-6.4B / CP1270-5.0B / CP1272-2.8B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0473			S. Br. Iron River	CP1268-7.6B / CP1270-	Line 5	New nomenclature and

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]			6.3B / CP1272-4.0B		duplicated control points
Great Lakes	GLRCP0474			S. Br. Iron River	CP1268-8.6N / CP1270-7.3N / CP1272-5.0N	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0475			S. Br. Iron River	CP1268-9.2W / CP1270-7.9W / CP1272-5.6W	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0476			S. Br. Iron River	CP1268-10.4B / CP1270-9.2B / CP1272-7.0B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0477			S. Br. Iron River	CP1268-11.2N / CP1270-10.0N / CP1272-7.8N	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0478			S. Br. Iron River	CP1268-12.3B / CP1270-11.0B / CP1272-8.8B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0479			S. Br. Iron River	CP1268-12.4B / CP1270-11.1B / CP1272-8.9B	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0481			S. Br. Iron River	CP1268-18.4N / CP1270-17.2N / CP1272-14.9N	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0482			S. Br. Iron River	CP1272-19.7B	Line 5	New nomenclature
Great Lakes	GLRCP0485			S. Br. Iron River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0486			Iron River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0487			Iron River	CP1290-12.9S	Line 5	New nomenclature
Great Lakes	GLRCP0488			Briar Hill Creek	CP1285-1.2B	Line 5	New nomenclature
Great Lakes	GLRCP0489			Briar Hill Creek	CP1285-3.4S	Line 5	New nomenclature
Great Lakes	GLRCP0490			Briar Hill Creek	CP1285-4.0B	Line 5	New nomenclature
Great Lakes	GLRCP0491			Briar Hill Creek	CP1285-4.2E	Line 5	New nomenclature
Great Lakes	GLRCP0492			Paint River	CP1290-0.2W	Line 5	New nomenclature
Great Lakes	GLRCP0493			Paint River	CP1290-4.0W	Line 5	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0494	[redacted]		Paint River	CP1290-6.9E	Line 5	New nomenclature
Great Lakes	GLRCP0495			Paint River	CP1290-7.5W	Line 5	New nomenclature
Great Lakes	GLRCP0496			Paint River	CP1290-8.0B	Line 5	New nomenclature
Great Lakes	GLRCP0497			Paint River	CP1290-8.1W	Line 5	New nomenclature
Great Lakes	GLRCP0498			Paint River	CP1290-8.9N / CP1295-10.0N / CP1297-8.3N	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0499			Paint River	CP1290-10.6E / CP1295-11.2E / CP1297-9.4E	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0500			Paint River	CP1290-10.8W	Line 5	New nomenclature
Great Lakes	GLRCP0501			Paint River	CP1290-14.4E / CP1295-15.0E / CP1297-13.2E	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0502			Paint River	CP1290-15.0S	Line 5	New nomenclature
Great Lakes	GLRCP0503			Michigamme River	CP1295-0.6W	Line 5	New nomenclature
Great Lakes	GLRCP0506			Michigamme River	CP1295-8.5N / CP1297-7.8N	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0507			Ford River	CP1316-2.0S	Line 5	New nomenclature
Great Lakes	GLRCP0508			Ford River	CP1316-11.1B	Line 5	New nomenclature
Great Lakes	GLRCP0509			Ford River	CP1316-15.4B	Line 5	New nomenclature
Great Lakes	GLRCP0510			Ford River	CP1316-19.7B	Line 5	New nomenclature
Great Lakes	GLRCP0511			Escanaba River Trib.	CP1337-0.5B	Line 5	New nomenclature
Great Lakes	GLRCP0512			Escanaba River Trib.	CP1337-6.4W / CP1342-0.8W	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0515			Escanaba River	CP1342-8.8B	Line 5	New nomenclature
Great Lakes	GLRCP0516			Escanaba River	CP1342-10.1S	Line 5	New nomenclature
Great Lakes	GLRCP0517			Escanaba River	CP1342-19.3W	Line 5	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]					
Great Lakes	GLRCP0518			Escanaba River	CP1342-22.1W	Line 5	New nomenclature
Great Lakes	GLRCP0519			Escanaba River	CP1342-23.2W	Line 5	New nomenclature
Great Lakes	GLRCP0520			Escanaba River	CP1342-23.3B	Line 5	New nomenclature
Great Lakes	GLRCP0521			Escanaba River	CP1342-24.8S	Line 5	New nomenclature
Great Lakes	GLRCP0522			Tacoosh River	CP1353-1.0B	Line 5	New nomenclature
Great Lakes	GLRCP0523			Tacoosh River	CP1353-4.0B	Line 5	New nomenclature
Great Lakes	GLRCP0524			Tacoosh River	CP1353-5.7B	Line 5	New nomenclature
Great Lakes	GLRCP0525			Tacoosh River	CP1353-6.3B	Line 5	New nomenclature
Great Lakes	GLRCP0526			Tacoosh River	CP1353-7.2B	Line 5	New nomenclature
Great Lakes	GLRCP0527			Tacoosh River	CP1353-7.5B	Line 5	New nomenclature
Great Lakes	GLRCP0528			Rapid River	CP1353-8.7E / CP1357-2.7E / CP1358-3.9E	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0530			Rapid River	CP1357-0.7E	Line 5	New nomenclature
Great Lakes	GLRCP0531			Rapid River	CP1357-1.5B	Line 5	New nomenclature
Great Lakes	GLRCP0532			White Fish River	CP1358-1.7B	Line 5	New nomenclature
Great Lakes	GLRCP0533			White Fish River	CP1358-2.9E	Line 5	New nomenclature
Great Lakes	GLRCP0534			Sturgeon River	CP1370-0.4W	Line 5	New nomenclature
Great Lakes	GLRCP0536			Sturgeon River	CP1370-6.2B	Line 5	New nomenclature
Great Lakes	GLRCP0537			Sturgeon River	CP1370-7.7W	Line 5	New nomenclature
Great Lakes	GLRCP0538			Sturgeon River	CP1370-10.5W	Line 5	New nomenclature
Great Lakes	GLRCP0539			Sturgeon River	CP1370-13.3B	Line 5	New nomenclature
Great Lakes	GLRCP0540			Sturgeon River	CP1370-14.2W	Line 5	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0541	[redacted]		Sturgeon River	CP1370-14.7B	Line 5	New nomenclature
Great Lakes	GLRCP0542			Sturgeon River	CP1370-14.9E	Line 5	New nomenclature
Great Lakes	GLRCP0543			Sturgeon River	CP1370-15.2E	Line 5	New nomenclature
Great Lakes	GLRCP0544			Indian River	CP1393-1.0W	Line 5	New nomenclature
Great Lakes	GLRCP0545			Indian River	CP1393-1.7N / CP1394-2.4N	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0546			Indian River	CP1393-2.0S / CP1394-2.8S	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0547			Indian River	CP1393-2.5W / CP1394-3.3W	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0548			Indian River	CP1393-3.7W / CP1394-4.5W	Line 5	New nomenclature and duplicated control points
Great Lakes	GLRCP0549			Little Bear Creek		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0550			Little Bear Creek		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0551			Little Bear Creek		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0552			Little Bear Creek		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0553			Little Bear Creek		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0554			Little Bear Creek		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0555			Little Bear Creek		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0559			Lower Millecoquins River	CP1434-4.6B	Line 5	New nomenclature
Great Lakes	GLRCP0561			West Mile Creek	CP1436-1.6B	Line 5	New nomenclature
Great Lakes	GLRCP0562			West Mile Creek	CP1436-1.7S	Line 5	New nomenclature
Great Lakes	GLRCP0563			West Mile Creek	CP1436-3.1W / CP1439-8.9W	Line 5	New nomenclature and duplicated control points

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0564	[redacted]		Black River	CP1439-3.1B	Line 5	New nomenclature
Great Lakes	GLRCP0565			Black River	CP1439-3.3E	Line 5	New nomenclature
Great Lakes	GLRCP0566			Davenport Creek	CP1444-2.7B	Line 5	New nomenclature
Great Lakes	GLRCP0567			Davenport Creek	CP1444-3.3S	Line 5	New nomenclature
Great Lakes	GLRCP0568			Cut River	CP1452-0.8S	Line 5	New nomenclature
Great Lakes	GLRCP0569			Brevort River	CP1464-3.5B	Line 5	New nomenclature
Great Lakes	GLRCP0570			Brevort River	CP1464-3.7S	Line 5	New nomenclature
Great Lakes	GLRCP0571			Straits of Mackinac	CP1477-3.8E	Line 5	New nomenclature
Great Lakes	GLRCP0572			Straits of Mackinac	CP1477-4.0E	Line 5	New nomenclature
Great Lakes	GLRCP0573			Straits of Mackinac	CP1477-5.0E	Line 5	New nomenclature
Great Lakes	GLRCP0574			Straits of Mackinac	CP1477-6.9E	Line 5	New nomenclature
Great Lakes	GLRCP0575			Indian River	CP1508-1.2W US	Line 5	New nomenclature
Great Lakes	GLRCP0576			Indian River	CP1508-0.3S US	Line 5	New nomenclature
Great Lakes	GLRCP0577			Indian River	CP1508-2.3S	Line 5	New nomenclature
Great Lakes	GLRCP0578			Indian River	CP1508-6.0W	Line 5	New nomenclature
Great Lakes	GLRCP0579			Little Pigeon River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0580			Little Pigeon River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0581			Little Pigeon River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0582			Little Pigeon River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0583			Little Pigeon River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0584			Little Pigeon River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0585			Little Pigeon River		Line 5	Not originally included

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]					in Appendix D
Great Lakes	GLRCP0586			Little Pigeon River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0587			Pigeon River	CP1529-2.0B	Line 5	New nomenclature
Great Lakes	GLRCP0588			Pigeon River	CP1529-3.2B	Line 5	New nomenclature
Great Lakes	GLRCP0589			Pigeon River	CP1529-6.8B	Line 5	New nomenclature
Great Lakes	GLRCP0590			Pigeon River	CP1529-11.0B	Line 5	New nomenclature
Great Lakes	GLRCP0591			Pigeon River	CP1529-13.2E	Line 5	New nomenclature
Great Lakes	GLRCP0592			Pigeon River	CP1529-15.9B	Line 5	New nomenclature
Great Lakes	GLRCP0593			Pigeon River	CP1529-17.5E	Line 5	New nomenclature
Great Lakes	GLRCP0594			Pigeon River	CP1529-23.0B	Line 5	New nomenclature
Great Lakes	GLRCP0595			Pigeon River	CP1529-25.9B	Line 5	New nomenclature
Great Lakes	GLRCP0596			Pigeon River	CP1529-26.9B	Line 5	New nomenclature
Great Lakes	GLRCP0597			Pigeon River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0598			Pigeon River		Line 5	Not originally included in Appendix D
Great Lakes	GLRCP0599			East Branch Big Creek	CP1556-3.7	Line 5	New nomenclature
Great Lakes	GLRCP0600			East Branch Big Creek	CP1556-7.5	Line 5	New nomenclature
Great Lakes	GLRCP0601			East Branch Big Creek	CP1556-10.0	Line 5	New nomenclature
Great Lakes	GLRCP0602			Au Sable River	CP1562-1.2	Line 5	New nomenclature
Great Lakes	GLRCP0603			Au Sable River	CP1562-3.1	Line 5	New nomenclature
Great Lakes	GLRCP0604			Au Sable River	CP1562-5.5	Line 5	New nomenclature
Great Lakes	GLRCP0605			Au Sable River	CP1562-10.0	Line 5	New nomenclature
Great Lakes	GLRCP0606			Au Sable River	CP1562-10.8	Line 5	New nomenclature
Great Lakes	GLRCP0607			Au Sable River	CP1562-14.1	Line 5	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0608	[redacted]	[redacted]	West Branch Big Creek	CP1566-2.8	Line 5	New nomenclature
Great Lakes	GLRCP0609	[redacted]	[redacted]	West Branch Big Creek	CP1566-4.5	Line 5	New nomenclature
Great Lakes	GLRCP0610	[redacted]	[redacted]	Crapo Creek	CP1587-2.3	Line 5	New nomenclature
Great Lakes	GLRCP0611	[redacted]	[redacted]	Crapo Creek	CP1587-3.9	Line 5	New nomenclature
Great Lakes	GLRCP0612	[redacted]	[redacted]	Crapo Creek	CP1587-5.9	Line 5	New nomenclature
Great Lakes	GLRCP0613	[redacted]	[redacted]	Crapo Creek	CP1587-7.8	Line 5	New nomenclature
Great Lakes	GLRCP0614	[redacted]	[redacted]	West Branch Rifle River	CP1592-2.6	Line 5	New nomenclature
Great Lakes	GLRCP0615	[redacted]	[redacted]	West Branch Rifle River	CP1592-6.7	Line 5	New nomenclature
Great Lakes	GLRCP0616	[redacted]	[redacted]	West Branch Rifle River	CP1592-20.5	Line 5	New nomenclature
Great Lakes	GLRCP0617	[redacted]	[redacted]	Saganing Creek	CP1616-4.7	Line 5	New nomenclature
Great Lakes	GLRCP0618	[redacted]	[redacted]	Saganing Creek	CP1616-6.5	Line 5	New nomenclature
Great Lakes	GLRCP0619	[redacted]	[redacted]	Saganing Creek	CP1616-8.3	Line 5	New nomenclature
Great Lakes	GLRCP0620	[redacted]	[redacted]	Saganing Creek	CP1616-10.9	Line 5	New nomenclature
Great Lakes	GLRCP0621	[redacted]	[redacted]	Saganing Creek	CP1616-13.1	Line 5	New nomenclature
Great Lakes	GLRCP0622	[redacted]	[redacted]	Pinconning River	CP1621-1.7	Line 5	New nomenclature
Great Lakes	GLRCP0623	[redacted]	[redacted]	Pinconning River	CP1621-3.2	Line 5	New nomenclature
Great Lakes	GLRCP0624	[redacted]	[redacted]	Pinconning River	CP1621-5.3	Line 5	New nomenclature
Great Lakes	GLRCP0625	[redacted]	[redacted]	Pinconning River	CP1621-6.4	Line 5	New nomenclature
Great Lakes	GLRCP0626	[redacted]	[redacted]	Pinconning River	CP1621-7.8	Line 5	New nomenclature
Great Lakes	GLRCP0627	[redacted]	[redacted]	North Branch Kawkawlin River	CP1631-4.6	Line 5	New nomenclature
Great Lakes	GLRCP0628	[redacted]	[redacted]	North Branch Kawkawlin River	CP1631-5.8	Line 5	New nomenclature
Great Lakes	GLRCP0629	[redacted]	[redacted]	Kawkawlin River	CP1638-2.4	Line 5	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]					
Great Lakes	GLRCP0630			Kawkawlin River	CP1638-4.4	Line 5	New nomenclature
Great Lakes	GLRCP0631			Kawkawlin River	CP1638-6.6	Line 5	New nomenclature
Great Lakes	GLRCP0632			Kawkawlin River	CP1638-7.6	Line 5	New nomenclature
Great Lakes	GLRCP0633			Squaconning Creek	CP1643-2.0	Line 5	New nomenclature
Great Lakes	GLRCP0634			Squaconning Creek	CP1643-2.7	Line 5	New nomenclature
Great Lakes	GLRCP0635			Squaconning Creek	CP1643-2.7E	Line 5	New nomenclature
Great Lakes	GLRCP0636			Squaconning Creek	CP1643-3.9	Line 5	New nomenclature
Great Lakes	GLRCP0637			Saginaw River	CP1645-3.2	Line 5	New nomenclature
Great Lakes	GLRCP0638			Saginaw River	CP1645-4.9	Line 5	New nomenclature
Great Lakes	GLRCP0639			Saginaw River	CP1645-8.0	Line 5	New nomenclature
Great Lakes	GLRCP0640			Quanicassee River	CP1652-3.4	Line 5	New nomenclature
Great Lakes	GLRCP0641			Quanicassee River	CP1655-3.1	Line 5	New nomenclature
Great Lakes	GLRCP0642			Quanicassee River	CP1655-6.5	Line 5	New nomenclature
Great Lakes	GLRCP0643			Quanicassee River	CP1655-7.1	Line 5	New nomenclature
Great Lakes	GLRCP0644			Cass River	CP1669-2.6	Line 5	New nomenclature
Great Lakes	GLRCP0645			Cass River	CP1669-9.9	Line 5	New nomenclature
Great Lakes	GLRCP0646			Indian Creek	CP1688-4.7	Line 5	New nomenclature
Great Lakes	GLRCP0647			Indian Creek	CP1688-8.0	Line 5	New nomenclature
Great Lakes	GLRCP0648			Indian Creek	CP1688-9.7	Line 5	New nomenclature
Great Lakes	GLRCP0649			Indian Creek	CP1688-13.6	Line 5	New nomenclature
Great Lakes	GLRCP0670			Indian River		Line 5	Not originally included in Appendix D

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Great Lakes	GLRCP0671	[redacted]		Kankakee River	CP37-9.4W	Line 62 & Line 78	New nomenclature
Great Lakes	GLRCP0672			Kankakee River	CP37-9.3E	Line 13	New nomenclature
Mid Continent	MDRCP0001			Black Walnut Creek	CP 61.80 - 0.43	Line 78	New nomenclature
Mid Continent	MDRCP0002			Black Walnut Creek	CP 61.80 - 2.76	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0003			Black Walnut Creek	CP 61.80 - 6.69	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0004			Black Walnut Creek	CP 61.80 - 12.97	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0005			Rock Creek	CP 57.31 - 0.43	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0006			Rock Creek	CP 57.31 - 2.70	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0007			Rock Creek	CP 57.31 - 4.85	Line 78	New nomenclature
Mid Continent	MDRCP0008			Rock Creek	CP 52.11 - 0.81 / CP 57.31 - 6.55	Line 62 & Line 78	New nomenclature and duplicated control points
Mid Continent	MDRCP0009			Rock Creek	CP 52.11 - 3.90	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0010			Rock Creek	CP 52.11 - 8.55	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0011			Rock Creek	CP 52.11 - 13.20	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0012			Unnamed Creek	CP 48.40 - 1.12	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0013			Unnamed Creek	CP 48.40 - 3.16	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0014			Unnamed Creek	CP 48.40 - 4.63	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0015			Unnamed Creek	CP 48.40 - 6.27	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0017			Rayns Creek	CP 40.60 - 1.28	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0018			Rayns Creek	CP 39.27 - 1.00 / CP 40.60 - 2.54	Line 62 & Line 78	New nomenclature and duplicated control points
Mid Continent	MDRCP0019			Mary Byron Creek	CP 38.33 - 1.32 / CP 39.27 - 1.35 / CP 39.27 - 2.45 / CP 40.60 - 3.65 / CP 40.60 - 5.23	Line 62 & Line 78	New nomenclature and duplicated control points
Mid Continent	MDRCP0020			Mary Byron Creek	CP 38.33 - 2.43 / CP 39.27 - 2.93	Line 62 & Line 78	New nomenclature and duplicated control points
Mid Continent	MDRCP0023			Mary Byron Creek	CP 38.33 - 0.15	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0024			Mary Byron Creek	CP 38.33 - 0.67	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0025			Kankakee River	CP 37.59 - 0.66	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0026			Kankakee River	CP37-0.8S	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0027			Kankakee River	CP 37.59 - 2.63	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0028			Kankakee River	CP 37.59 - 3.08	Line 62 & Line 78	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Mid Continent	MDRCP0029	[redacted]	[redacted]	Kankakee River	CP 37.59 - 4.77	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0030	[redacted]	[redacted]	West Horse Creek	CP 31.10 - 7.05	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0031	[redacted]	[redacted]	Kankakee River	CP37-5.4S	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0032	[redacted]	[redacted]	Kankakee River	CP 37.59 - 5.49	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0034	[redacted]	[redacted]	Kankakee River	CP 37.59 - 6.87	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0035	[redacted]	[redacted]	Terry Creek	CP 35.10 - 0.74	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0036	[redacted]	[redacted]	Terry Creek	CP 35.10 - 1.79	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0037	[redacted]	[redacted]	Terry Creek	CP 35.10 - 2.68	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0038	[redacted]	[redacted]	West Horse Creek	CP 30.40 - 0.58 / CP 31.10 - 0.74	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0039	[redacted]	[redacted]	West Horse Creek	CP 31.10 - 2.39	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0040	[redacted]	[redacted]	West Horse Creek	CP 31.10 - 3.17	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0041	[redacted]	[redacted]	Granary Creek	CP 27.60 - 0.94	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0042	[redacted]	[redacted]	Granary Creek	CP 27.60 - 1.84	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0043	[redacted]	[redacted]	Granary Creek	CP 27.60 - 2.48	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0044	[redacted]	[redacted]	Crane Creek	CP 25.55 - 3.50 / CP 27.60 - 3.50	Line 62 & Line 78	New nomenclature and duplicated control points
Mid Continent	MDRCP0045	[redacted]	[redacted]	Crane Creek	CP 25.55 - 1.15	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0046	[redacted]	[redacted]	Crane Creek	CP 25.55 - 2.34	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0047	[redacted]	[redacted]	Crane Creek	CP 25.55 - 3.33	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0048	[redacted]	[redacted]	East Reddick Run	CP 24.10 - 0.90 / CP 24.70 - 0.74	Line 62 & Line 78	New nomenclature and duplicated control points
Mid Continent	MDRCP0049	[redacted]	[redacted]	East Reddick Run	CP 24.10 - 2.11	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0050	[redacted]	[redacted]	East Reddick Run	CP 24.10 - 3.32	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0051	[redacted]	[redacted]	East Reddick Run	CP 24.10 - 4.10	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0052	[redacted]	[redacted]	Ephemeral Creek	CP 23.10 - 0.56	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0053	[redacted]	[redacted]	Ephemeral Creek	CP 23.10 - 1.66	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0054	[redacted]	[redacted]	Ephemeral Creek	CP 23.10 - 3.22	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0055	[redacted]	[redacted]	Ephemeral Creek	CP 23.10 - 4.52	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0056	[redacted]	[redacted]	North Goose Berry Creek	CP 19.60 - 0.44	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0057	[redacted]	[redacted]	East Fork Mazon River	CP 20.60 - 2.26	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0058	[redacted]	[redacted]	East Fork Mazon River	CP 20.60 - 3.82	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0059	[redacted]	[redacted]	East Fork Mazon River	CP 20.60 - 4.92	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0060	[redacted]	[redacted]	East Fork Mazon River	CP 20.60 - 6.67	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0061	[redacted]	[redacted]	Goose Berry Creek	CP 16.60 - 0.52	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0062	[redacted]	[redacted]	Goose Berry Creek	CP 16.60 - 1.75	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0063	[redacted]	[redacted]	Goose Berry Creek	CP 16.60 - 2.19	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0064	[redacted]	[redacted]	Goose Berry Creek	CP 16.60 - 4.02	Line 62 & Line 78	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Mid Continent	MDRCP0065	[redacted]	[redacted]	Unnamed Creek	CP 13.60 - 0.13	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0066	[redacted]	[redacted]	Unnamed Creek	CP 13.60 - 1.45	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0067	[redacted]	[redacted]	Unnamed Creek	CP 13.60 - 2.14	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0068	[redacted]	[redacted]	Unnamed Creek	CP 13.60 - 3.08	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0069	[redacted]	[redacted]	G.B. Creek	CP 11.00 - 0.71	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0070	[redacted]	[redacted]	G.B. Creek	CP 11.00 - 1.87	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0071	[redacted]	[redacted]	G.B. Creek	CP 11.00 - 3.19	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0072	[redacted]	[redacted]	G.B. Creek	CP 11.00 - 3.41	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0073	[redacted]	[redacted]	Small (Unnamed) Creek	CP 9.00 - 0.67	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0074	[redacted]	[redacted]	Small (Unnamed) Creek	CP 9.00 - 1.02	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0075	[redacted]	[redacted]	Small (Unnamed) Creek	CP 9.00 - 2.19	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0076	[redacted]	[redacted]	Small (Unnamed) Creek	CP 9.00 - 3.60	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0077	[redacted]	[redacted]	Deer Creek	CP 2.20 - 0.10	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0078	[redacted]	[redacted]	Deer Creek	CP3.40 - 1.27	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0079	[redacted]	[redacted]	Deer Creek	CP3.40 - 1.37	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0080	[redacted]	[redacted]	Deer Creek	CP 2.20 - 1.64	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0081	[redacted]	[redacted]	Deer Creek	CP 2.20 - 2.90	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0082	[redacted]	[redacted]	Deer Creek	CP 2.20 - 4.04	Line 62 & Line 78	New nomenclature
Mid Continent	MDRCP0114	[redacted]	[redacted]	Mud Creek	CP452-2.0W	Line 61	New nomenclature
Mid Continent	MDRCP0115	[redacted]	[redacted]	Mud Creek	CP452-3.5E	Line 61	New nomenclature
Mid Continent	MDRCP0116	[redacted]	[redacted]	Mud Creek	CP452-7.8E	Line 61	New nomenclature
Mid Continent	MDRCP0117	[redacted]	[redacted]	Mud Creek	CP452-9.4S	Line 61	New nomenclature
Mid Continent	MDRCP0118	[redacted]	[redacted]	Mud Creek	CP452-12.8E	Line 61	New nomenclature
Mid Continent	MDRCP0119	[redacted]	[redacted]	Mud Creek	CP452-16.3E	Line 61	New nomenclature
Mid Continent	MDRCP0120	[redacted]	[redacted]	Mud Creek	CP452-18.2E	Line 61	New nomenclature
Superior	SURCP0001	[redacted]	[redacted]	Pembina	CP776-0.8S	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0002	[redacted]	[redacted]	Pembina	CP776-1.9B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0003	[redacted]	[redacted]	Pembina	CP776-6.8B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0004	[redacted]	[redacted]	Pembina	CP776-8.3B	Line 1, Line 2, Line	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]				3, Line 4, Line 13, Line 65 & Line 67	
Superior	SURCP0005			Pembina	CP776-11.9B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0006			Pembina	CP776-15.9S	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0007			Pembina	CP776-18.0S	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0008			Pembina	CP776-21.5B / CP786-8.0B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature and duplicated control points
Superior	SURCP0009			Pembina	CP776-25.9S / CP786-12.4S	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature and duplicated control points
Superior	SURCP0010			Pembina	CP776-26.7B / CP786-13.2B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature and duplicated control points
Superior	SURCP0011			Pembina	CP776-28.6B / CP786-15.1B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature and duplicated control points
Superior	SURCP0012			Pembina	CP776-28.7W, CP786-15.2W	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature and duplicated control points
Superior	SURCP0013			Louden Coulee	CP781-0.4N	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0014			County Ditch No. 33	CP782-1.5B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0015			County Ditch No. 33	CP782-2.6B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0016			Tongue River Cutoff	CP783-0.5B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0017			Tongue River Cutoff	CP783-2.5B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0018			Tongue River	CP786-0.6B	Line 1, Line 2, Line	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
						3, Line 4, Line 13, Line 65 & Line 67	
Superior	SURCP0019	[redacted]		Tongue River	CP786-1.9B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0020			Tongue River	CP786-3.5E	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0021			Tongue River	CP786-4.9B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0022			Tongue River	CP786-6.3B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0023			Red River of the North	CP802-0.1W US	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0024			Red River of the North	CP802-0.4E	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0027			Red River of the North	CP802-1.3E	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0030			Red River of the North	CP802-2.4W	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0031			Red River of the North	CP802-2.7E	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0032			Red River of the North	CP802-3.9W	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0033			Red River of the North	CP802-5.1N	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0035			Red River of the North	CP802-6.2E	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0036			Red River of the North	CP802-7.3E	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0037			Red River of the North	CP802-9.3E	Line 1, Line 2, Line	New nomenclature

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Control Points with Proposed Changes							
Region	**CP_ID**	**Longitude**	**Latitude**	**WaterCrossing**	**DOJ_CP_Names**	**Upstream Pipelines**	**Reason for Change**
		[redacted]	[redacted]			3, Line 4, Line 13, Line 65 & Line 67	
Superior	SURCP0039	[redacted]	[redacted]	Red River of the North	CP802-12.9N	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0042	[redacted]	[redacted]	Red River of the North	CP802-15.8E	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0043	[redacted]	[redacted]	Red River of the North	CP802-18.2E	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0044	[redacted]	[redacted]	Red River of the North		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0045	[redacted]	[redacted]	Red River of the North		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0046	[redacted]	[redacted]	Red River of the North		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0047	[redacted]	[redacted]	Red River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0048	[redacted]	[redacted]	Tamarac River	CP829-2.0S	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0049	[redacted]	[redacted]	Tamarac River	CP829-3.5B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0050	[redacted]	[redacted]	Tamarac River	CP829-9.4B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0051	[redacted]	[redacted]	Tamarac River	CP829-11.2S	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0052	[redacted]	[redacted]	Tamarac River	CP829-12.2B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0053	[redacted]	[redacted]	Tamarac River	CP829-15.1B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0054	[redacted]	[redacted]	Middle River		Line 1, Line 2, Line	Not originally included

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]				3, Line 4, Line 13, Line 65 & Line 67	in Appendix D
Superior	SURCP0055			Middle River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0056			Middle River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0057			Middle River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0058			Middle River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0059			Middle River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0060			Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0061			Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0062			Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0063			Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0064			Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0065			Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0066			Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0067			South Branch Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0068			South Branch Snake River		Line 1, Line 2, Line	Not originally included

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]				3, Line 4, Line 13, Line 65 & Line 67	in Appendix D
Superior	SURCP0069			South Branch Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0070			South Branch Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0071			South Branch Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0072			South Branch Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0073			South Branch Snake River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0074			Red Lake River	CP864-2.3B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0075			Red Lake River	CP864-3.2W	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0076			Red Lake River	CP864-4.7N	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0078			Red Lake River	CP864-9.6W	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0080			Red Lake River	CP864-21.5B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0081			Red Lake River	CP864-23.0B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0082			Red Lake River	CP864-25.6B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0083			Red Lake River	CP864-26.3S / CP875-31.7E	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature and duplicated control points
Superior	SURCP0084			Clearwater River	CP875-0.9B	Line 1, Line 2, Line	New nomenclature

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Control Points with Proposed Changes							
Region	**CP_ID**	**Longitude**	**Latitude**	**WaterCrossing**	**DOJ_CP_Names**	**Upstream Pipelines**	**Reason for Change**
		[redacted]				3, Line 4, Line 13, Line 65 & Line 67	
Superior	SURCP0085			Clearwater River	CP875-2.2B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0086			Clearwater River	CP875-6.3B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0089			Clearwater River	CP875-13.8B	Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0090			Clearwater River	CP875-23.3S	Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0091			Lost River	CP886-1.4N	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0093			Lost River	CP886-2.9B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0094			Lost River	CP886-4.5S	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0095			Lost River	CP886-8.9B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0096			Lost River	CP886-14.3B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0097			Lost River	CP886-14.9B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	New nomenclature
Superior	SURCP0099			Lost River	CP904-2.3B	Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0100			Lost River	CP904-2.5B	Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0101			Lost River	CP904-3.5B	Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0102			Lost River	CP904-3.7B	Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0103			Lost River	CP904-3.8S	Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0104			Lost River	CP904-6.5B	Line 80, Line 81 & Line 81-101	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Superior	SURCP0105	[redacted]	[redacted]	Lost River	CP904-6.8B	Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0106	[redacted]	[redacted]	Lost River	CP904-7.2B	Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0107	[redacted]	[redacted]	Lost River	CP904-8.7N	Line 1, Line 2, Line 3, Line 4, Line 13, Line 65, Line 67, Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0108	[redacted]	[redacted]	Lost River	CP904-9.2B	Line 80, Line 81 & Line 81-101	New nomenclature
Superior	SURCP0109	[redacted]	[redacted]	Silver Creek		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65, Line 67, Line 80, Line 81 & Line 81-101	Not originally included in Appendix D
Superior	SURCP0110	[redacted]	[redacted]	Silver Creek		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65, Line 67, Line 80, Line 81 & Line 81-101	Not originally included in Appendix D
Superior	SURCP0111	[redacted]	[redacted]	Silver Creek		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65, Line 67, Line 80, Line 81 & Line 81-101	Not originally included in Appendix D
Superior	SURCP0112	[redacted]	[redacted]	Silver Creek		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65, Line 67, Line 80, Line 81 & Line 81-101	Not originally included in Appendix D
Superior	SURCP0113	[redacted]	[redacted]	Silver Creek		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65, Line 67, Line 80, Line 81 & Line 81-101	Not originally included in Appendix D
Superior	SURCP0114	[redacted]	[redacted]	Silver Creek		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65, Line 67, Line 80, Line 81 & Line 81-101	Not originally included in Appendix D
Superior	SURCP0115	[redacted]	[redacted]	Silver Creek		Line 1, Line 2, Line 3, Line 4, Line 13,	Not originally included in Appendix D

Control Points with Proposed Changes							
Region	**CP_ID**	**Longitude**	**Latitude**	**WaterCrossing**	**DOJ_CP_Names**	**Upstream Pipelines**	**Reason for Change**
						Line 65, Line 67, Line 80, Line 81 & Line 81-101	
Superior	SURCP0116	[redacted]	[redacted]	Silver Creek		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65, Line 67, Line 80, Line 81 & Line 81-101	Not originally included in Appendix D
Superior	SURCP0117	[redacted]	[redacted]	Silver Creek		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65, Line 67, Line 80, Line 81 & Line 81-101	Not originally included in Appendix D
Superior	SURCP0118	[redacted]	[redacted]	Silver Creek		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65, Line 67, Line 80, Line 81 & Line 81-101	Not originally included in Appendix D
Superior	SURCP0119	[redacted]	[redacted]	Ruffy Brook		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0120	[redacted]	[redacted]	Ruffy Brook		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0121	[redacted]	[redacted]	Ruffy Brook		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0122	[redacted]	[redacted]	Ruffy Brook		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0123	[redacted]	[redacted]	Ruffy Brook		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0124	[redacted]	[redacted]	Ruffy Brook		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0125	[redacted]	[redacted]	Ruffy Brook		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0126	[redacted]	[redacted]	Ruffy Brook		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Superior	SURCP0127	[redacted]	[redacted]	Ruffy Brook		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0128			Clearwater River Tributary	CP922-0.3B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0130			Clearwater River Tributary	CP922-8.7B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0131			Clearwater River Tributary	CP922-12.1E	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0132			Clearwater River Tributary	CP922-18.3W	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0134			Grant Creek	CP927-2.2B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0135			Grant Creek	CP927-5.2B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0136			Grant Creek	CP927-6.6B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0138			Grant Creek	CP927-9.6B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0140			Grant Creek	CP927-12.3B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0142			Mississippi River	CP940-1.1E	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0143			Mississippi River	CP940-1.4E	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0144			Mississippi River	CP940-1.6S	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0145			Necktie River	CP945-1.3B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Superior	SURCP0146	[redacted]	[redacted]	Necktie River	CP945-2.9B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0147	[redacted]	[redacted]	Necktie River	CP945-5.9B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0148	[redacted]	[redacted]	Necktie River	CP945-8.4B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0149	[redacted]	[redacted]	Necktie River	CP945-11.4B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0150	[redacted]	[redacted]	Necktie River	CP945-12.7B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0151	[redacted]	[redacted]	Cass Lake	CP956-0.0W	Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0152	[redacted]	[redacted]	Cass Lake	CP956-0.4W	Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0153	[redacted]	[redacted]	Cass Lake	CP956-0.5W	Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0154	[redacted]	[redacted]	Cass Lake	CP956-0.6E	Line 1 & Line 2	New nomenclature
Superior	SURCP0155	[redacted]	[redacted]	Cass Lake	CP956-3.0E	Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0156	[redacted]	[redacted]	Cass Lake	CP956-3.5E	Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0157	[redacted]	[redacted]	Cass Lake	CP956-3.5S	Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0158	[redacted]	[redacted]	Cass Lake		Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0159	[redacted]	[redacted]	Cass Lake		Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0160	[redacted]	[redacted]	Cass Lake		Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0161	[redacted]	[redacted]	Cass Lake		Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0162	[redacted]	[redacted]	Cass Lake		Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0163	[redacted]	[redacted]	Cass Lake		Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0164	[redacted]	[redacted]	Cass Lake		Line 3, Line 4, Line	Not originally included

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]				13 & Line 67	in Appendix D
Superior	SURCP0166			Six Mile Lake Tributary Ditch	CP975-3.8E	Line 4	New nomenclature
Superior	SURCP0167			Bear Brook Creek Tributary	CP981-0.2W	Line 1, Line 2, Line 3, Line 4 , Line 13 & Line 67	New nomenclature
Superior	SURCP0168			Bear Brook Creek Tributary	CP981-0.6N	Line 1, Line 2, Line 3, Line 4 , Line 13 & Line 67	New nomenclature
Superior	SURCP0171			Mississippi River	CP986-4.6N	Line 4	New nomenclature
Superior	SURCP0172			Mississippi River	CP986-4.7B	Line 4	New nomenclature
Superior	SURCP0173			Mississippi River	CP986-7.9S	Line 1, Line 2, Line 3, Line 4 , Line 13 & Line 67	New nomenclature
Superior	SURCP0174			Mississippi River	CP986-13.0E / CP989-8.0E	Line 1	New nomenclature and duplicated control points
Superior	SURCP0175			Mississippi River	CP986-17.1W / CP989-11.9W	Line 1	New nomenclature and duplicated control points
Superior	SURCP0176			Mississippi River	CP986-19.5W / CP989-14.0W	Line 1	New nomenclature and duplicated control points
Superior	SURCP0177			Mississippi River	CP986-23.7E / CP989-18.2E	Line 1	New nomenclature and duplicated control points
Superior	SURCP0178			Mississippi River	CP986-24.0B / CP989-18.5B	Line 1	New nomenclature and duplicated control points
Superior	SURCP0179			Mississippi River	CP1004-0.9N / CP989-27.4N	Line 1 & Line 2	New nomenclature and duplicated control points
Superior	SURCP0180			Deer River	CP995-2.6N	Line 1	New nomenclature
Superior	SURCP0181			Bass Brook	CP1104-0.7W	Line 1, Line 2, Line 3, Line 4 , Line 13 & Line 67	New nomenclature
Superior	SURCP0184			Bass Brook	CP1004-3.4B	Line 1, Line 2, Line 3, Line 4 , Line 13 & Line 67	New nomenclature

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Control Points with Proposed Changes							
Region	**CP_ID**	**Longitude**	**Latitude**	**WaterCrossing**	**DOJ_CP_Names**	**Upstream Pipelines**	**Reason for Change**
Superior	SURCP0185	[redacted]		Prairie River	CP1011-0.1W	Line 1, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0186	[redacted]		Prairie River	CP1011-0.5B	Line 1, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0187	[redacted]		Prairie River	CP1011-1.4B	Line 2 & Line 3	New nomenclature
Superior	SURCP0188	[redacted]		Prairie River	CP1011-8.1N	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0189	[redacted]		Prairie River	CP1011-15.1W	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0190	[redacted]		Prairie River	CP1011-17.5E	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0193	[redacted]		Prairie River	CP1011-33.1W	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0194	[redacted]		Prairie River		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0195	[redacted]		Prairie River		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0196	[redacted]		Prairie River		Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0197	[redacted]		Prairie River		Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0198	[redacted]		Tributary to Mississippi River		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0199	[redacted]		Swan River	CP1024-1.5E	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0200	[redacted]		Swan River	CP1024-13.2B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0201	[redacted]		Swan River	CP1024-14.7B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Superior	SURCP0202	[redacted]		Swan River	CP1024-15.5B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0203			Swan River		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0204			Swan River		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0205			Floodwood Station Ditch	CP1044-0.2B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0206			Floodwood Station Ditch	CP1044-0.3B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0207			Floodwood Station Ditch	CP1044-0.7W	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0208			Floodwood Station Ditch	CP1044-1.5B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0209			Floodwood Station Ditch	CP1044-1.6W	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0210			Floodwood Station Ditch	CP1044-1.8N	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0211			Floodwood Station Ditch	CP1044-12.8S / CP1046-11.9S	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature and duplicated control points
Superior	SURCP0212			East Savannah River	CP1046-1.1B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0214			East Savannah River	CP1046-19.9S	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0215			East Savannah River	CP1046-22.4E	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0216			McCarthy Creek		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Superior	SURCP0217	[redacted]		McCarthy Creek		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0218			McCarthy Creek		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0219			McCarthy Creek		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0220			McCarthy Creek		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0221			McCarthy Creek		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0222			McCarthy Creek		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0223			McCarthy Creek		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0224			St Louis. Tributary		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0225			Ahmik River		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0226			Stoney Brook	CP1062-0.1E	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0227			Stoney Brook	CP1062-3.4B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0228			Stoney Brook	CP1062-5.7E	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0229			Stoney Brook	CP1062-10.3B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0230			Stoney Brook	CP1062-10.8E	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Superior	SURCP0232	[redacted]		Big Lake	CP1066-1.0W	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0233			Big Lake	CP1066-2.0E	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0234			Little Otter Tributary		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0235			Little Otter Tributary		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0236			Little Otter Tributary		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0237			Little Otter Tributary		Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	Not originally included in Appendix D
Superior	SURCP0238			Little Otter Creek	CP1074-0.7S	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0239			Little Otter Creek	CP1074-4.7B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0240			Little Otter Creek	CP1074-5.6B	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0241			Little Otter Creek	CP1074-12.7N	Line 1, Line 2, Line 3, Line 4, Line 13 & Line 67	New nomenclature
Superior	SURCP0242			Little Pokegama River	CP1090-1.1B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 67 & Line 80	New nomenclature
Superior	SURCP0243			Little Pokegama River	CP1090-5.8B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 67 & Line 80	New nomenclature
Superior	SURCP0245			Pokegama River	CP1094-1.2B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 67 & Line 80	New nomenclature
Superior	SURCP0246			Pokegama River	CP1094-1.8B	Line 1, Line 2, Line 3, Line 4, Line 13, Line 67 & Line 80	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Superior	SURCP0247	[redacted]	[redacted]	Pokegama River	CP1094-2.8E	Line 1, Line 2, Line 3, Line 4, Line 13, Line 67 & Line 80	New nomenclature
Superior	SURCP0249	[redacted]	[redacted]	Nemadji River	CP2-1.7N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0250	[redacted]	[redacted]	Nemadji River	CP1099-0.0N / CP2-3.0N	Line 5	New nomenclature and duplicated control points
Superior	SURCP0251	[redacted]	[redacted]	Nemadji River	CP1099-0.4N / CP2-3.4N	Line 5	New nomenclature and duplicated control points
Superior	SURCP0252	[redacted]	[redacted]	Nemadji River	CP1099-1.4N / CP2-4.4N	Line 5	New nomenclature and duplicated control points
Superior	SURCP0253	[redacted]	[redacted]	Nemadji River	CP1099-1.6B / CP2-4.6B	Line 5	New nomenclature and duplicated control points
Superior	SURCP0254	[redacted]	[redacted]	Nemadji River	CP1099-1.7B / CP2-4.7B	Line 5	New nomenclature and duplicated control points
Superior	SURCP0255	[redacted]	[redacted]	Nemadji River	CP1099-2.3W / CP2-5.3W	Line 5	New nomenclature and duplicated control points
Superior	SURCP0256	[redacted]	[redacted]	Bluff Creek	CP1101-0.6B	Line 5	New nomenclature
Superior	SURCP0257	[redacted]	[redacted]	Bluff Creek	CP1101-0.8B	Line 5	New nomenclature
Superior	SURCP0258	[redacted]	[redacted]	Bluff Creek	CP1101-1.0W / CP1102-2.5W	Line 5	New nomenclature and duplicated control points
Superior	SURCP0259	[redacted]	[redacted]	Bluff Creek	CP1101-1.7W / CP1102-2.8W	Line 5	New nomenclature and duplicated control points
Superior	SURCP0260	[redacted]	[redacted]	Bear Creek	CP1102-0.2W	Line 5	New nomenclature
Superior	SURCP0261	[redacted]	[redacted]	Bear Creek	CP1102-0.4B	Line 5	New nomenclature
Superior	SURCP0262	[redacted]	[redacted]	Bear Creek	CP1102-0.5E	Line 5	New nomenclature
Superior	SURCP0263	[redacted]	[redacted]	Bear Creek	CP1102-2.2N	Line 5	New nomenclature
Superior	SURCP0264	[redacted]	[redacted]	Dutchman Creek	CP1104-1.9W	Line 5	New nomenclature

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Control Points with Proposed Changes							
Region	**CP_ID**	**Longitude**	**Latitude**	**WaterCrossing**	**DOJ_CP_Names**	**Upstream Pipelines**	**Reason for Change**
		[redacted]					
Superior	SURCP0265			Morrison Creek	CP1105-2.2N	Line 5	New nomenclature
Superior	SURCP0266			Amnicon River	CP1107-0.1B	Line 5	New nomenclature
Superior	SURCP0267			Amnicon River	CP1107-0.4W	Line 5	New nomenclature
Superior	SURCP0268			Amnicon River	CP1107-4.3E	Line 5	New nomenclature
Superior	SURCP0269			Amnicon River	CP1107-5.0E	Line 5	New nomenclature
Superior	SURCP0270			Middle River	CP1111-0.4	Line 5	New nomenclature
Superior	SURCP0271			Middle River	CP1111-0.7	Line 5	New nomenclature
Superior	SURCP0272			Middle River	CP1111-5.6W	Line 5	New nomenclature
Superior	SURCP0273			Poplar River	CP1112-1.1B	Line 5	New nomenclature
Superior	SURCP0274			Poplar River	CP1112-6.4B	Line 5	New nomenclature
Superior	SURCP0275			Poplar River	CP1112-7.2E	Line 5	New nomenclature
Superior	SURCP0277			Bois Brule River	CP1121-0.8E	Line 5	New nomenclature
Superior	SURCP0278			Bois Brule River	CP1121-5.5W	Line 5	New nomenclature
Superior	SURCP0279			Bois Brule River	CP1121-5.6E	Line 5	New nomenclature
Superior	SURCP0280			Bois Brule River	CP1121-7.6E	Line 5	New nomenclature
Superior	SURCP0281			Bois Brule River	CP1121-8.6W	Line 5	New nomenclature
Superior	SURCP0282			Bois Brule River	CP1121-12.4E	Line 5	New nomenclature
Superior	SURCP0283			Bois Brule River	CP1121-13.6E	Line 5	New nomenclature
Superior	SURCP0284			Iron River	CP1130-0.1B	Line 5	New nomenclature
Superior	SURCP0285			Iron River	CP1130-5.3B	Line 5	New nomenclature
Superior	SURCP0286			Iron River	CP1130-8.2E	Line 5	New nomenclature
Superior	SURCP0287			Iron River	CP1130-9.7E	Line 5	New nomenclature
Superior	SURCP0288			Iron River	CP1130-15.5E	Line 5	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
Superior	SURCP0289	[redacted]		Iron River	CP1130-15.9N	Line 5	New nomenclature
Superior	SURCP0290			Iron River	CP1130-17.4E	Line 5	New nomenclature
Superior	SURCP0291			North Fish Creek	CP1150-3.0B	Line 5	New nomenclature
Superior	SURCP0292			North Fish Creek	CP1150-4.0B	Line 5	New nomenclature
Superior	SURCP0293			North Fish Creek	CP1150-6.8W / CP1153-4.0W	Line 5	New nomenclature and duplicated control points
Superior	SURCP0294			South Fish Creek	CP1153-1.8B	Line 5	New nomenclature
Superior	SURCP0295			South Fish Creek		Line 5	Not originally included in Appendix D
Superior	SURCP0296			Bay City Creek	CP1157-1.0B	Line 5	New nomenclature
Superior	SURCP0297			Bay City Creek	CP1157-3.7B	Line 5	New nomenclature
Superior	SURCP0298			Bay City Creek	CP1157-5.0B	Line 5	New nomenclature
Superior	SURCP0299			Bay City Creek	CP1157-5.4W	Line 5	New nomenclature
Superior	SURCP0300			Beartrap Creek	CP1160-3.6B	Line 5	New nomenclature
Superior	SURCP0301			Beartrap Creek	CP1160-7.9B	Line 5	New nomenclature
Superior	SURCP0302			Beartrap Creek	CP1160-10.4N	Line 5	New nomenclature
Superior	SURCP0303			Beartrap Creek	CP1160-18.0W	Line 5	New nomenclature
Superior	SURCP0306			White River	CP-1163-9.2W / CP1165-10.5W	Line 5	New nomenclature and duplicated control points
Superior	SURCP0307			White River	CP1163-10.0N / CP1165-11.2N	Line 5	New nomenclature and duplicated control points
Superior	SURCP0308			White River	CP1163-10.1E / CP1165-11.6E	Line 5	New nomenclature and duplicated control points
Superior	SURCP0309			White River	CP-1163-10.5E / CP1165-11.8E	Line 5	New nomenclature and duplicated control points
Superior	SURCP0310			White River	CP1163-14.6S / CP1165-15.5S	Line 5	New nomenclature and duplicated control

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]	[redacted]				points
Superior	SURCP0311	[redacted]	[redacted]	Bad River	CP1165-4.7W	Line 5	New nomenclature
Superior	SURCP0312	[redacted]	[redacted]	Bad River	CP1165-9.4E	Line 5	New nomenclature
Superior	SURCP0313	[redacted]	[redacted]	Denomie Creek	CP1172-9.8B	Line 5	New nomenclature
Superior	SURCP0314	[redacted]	[redacted]	Denomie Creek	CP1172-10.5B	Line 5	New nomenclature
Superior	SURCP0315	[redacted]	[redacted]	Denomie Creek	CP1172-11.0W	Line 5	New nomenclature
Superior	SURCP0316	[redacted]	[redacted]	Spoon Creek	CP1177-0.4E	Line 5	New nomenclature
Superior	SURCP0319	[redacted]	[redacted]	Spoon Creek	CP1177/1178-5.0B	Line 5	New nomenclature
Superior	SURCP0320	[redacted]	[redacted]	Spoon Creek	CP1177/1178-5.3W	Line 5	New nomenclature
Superior	SURCP0321	[redacted]	[redacted]	Spoon Creek Tributary	CP1178-0.1W	Line 5	New nomenclature
Superior	SURCP0324	[redacted]	[redacted]	West Branch Montreal River		Line 5	Not originally included in Appendix D
Superior	SURCP0326	[redacted]	[redacted]	Montreal River	CP1189-9.1S / CP1191-11.8S / CP1194-13.7S	Line 5	New nomenclature and duplicated control points
Superior	SURCP0328	[redacted]	[redacted]	Montreal River	CP1189-18.5S / CP1191-21.3S / CP1194-23.1S	Line 5	New nomenclature and duplicated control points
Superior	SURCP0329	[redacted]	[redacted]	Montreal River	CP1189-22.2B	Line 5	New nomenclature
Superior	SURCP0330	[redacted]	[redacted]	St. Croix River	CP33-0.2B / CP34-1.5B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0331	[redacted]	[redacted]	St. Croix River	CP33-5.6N / CP34-6.8N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0332	[redacted]	[redacted]	St. Croix River	CP33-7.6W / CP34-8.8W	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0333	[redacted]	[redacted]	Eau Claire River	CP34-0.7B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0334	[redacted]	[redacted]	Eau Claire River	CP34-1.1B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0335	[redacted]	[redacted]	Totogatic River	CP41-1.5B	Line 13, Line 14,	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]				Line 61 & Line 6A	
Superior	SURCP0337			Totogatic River	CP41-8.0B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0338			Totogatic River	CP41-9.9B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0339			Totogatic River	CP41-10.5B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0341			Totogatic River	CP41-17.5W	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0342			Totogatic River	CP41-18.5W	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0343			Totogatic River	CP41-20.0B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0344			Totogatic River	CP41-21.1N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0345			Totogatic River	CP41-22.2E	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0346			Totogatic River	CP41-23.3W	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0347			Totogatic River	CP41-25.0W	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0348			Frog Creek		Line 13, Line 14, Line 61 & Line 6A	Not originally included in Appendix D
Superior	SURCP0349			Namekagon River	CP54-1.7B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0350			Namekagon River	CP54-3.9S	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0351			Namekagon River	CP54-6.0B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0352			Namekagon River	CP54-6.4S	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0353			Namekagon River	CP54-8.9W	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0354			Namekagon River	CP54-11.3W	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0356			Namekagon River	CP54-15.0N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0357			Namekagon River	CP54-16.5B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0358			Namekagon River	CP54-19.0N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0359			Namekagon River	CP54-19.6N	Line 13, Line 14,	New nomenclature

Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]				Line 61 & Line 6A	
Superior	SURCP0360	[redacted]		Namekagon River	CP54-19.8S	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0361	[redacted]		Namekagon River	CP54-22.6S	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0362	[redacted]		Namekagon River	CP54-24.9S	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0363	[redacted]		Sand Creek	CP66-0.3N-US	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0364	[redacted]		Sand Creek	CP66-0.2B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0365	[redacted]		Sand Creek	CP66-1.1B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0366	[redacted]		Sand Creek	CP66-1.6S	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0367	[redacted]		Summit Creek	CP71-0.4B	Line 13 & Line 61	New nomenclature
Superior	SURCP0368	[redacted]		Summit Creek	CP71-1.0B	Line 14 & Line 6A	New nomenclature
Superior	SURCP0369	[redacted]		Summit Creek	CP71-1.2B	Line 14 & Line 6A	New nomenclature
Superior	SURCP0370	[redacted]		Summit Creek	CP71-3.6N	Line 14 & Line 6A	New nomenclature
Superior	SURCP0371	[redacted]		Summit Creek	CP71-3.9N	Line 14 & Line 6A	New nomenclature
Superior	SURCP0372	[redacted]		Summit Creek	CP71-4.3N	Line 14 & Line 6A	New nomenclature
Superior	SURCP0373	[redacted]		Summit Creek	CP71-6.1B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0374	[redacted]		Summit Creek	CP71-7.3N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0375	[redacted]		Summit Creek	CP71-7.8N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0376	[redacted]		Summit Creek	CP71-8.3B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0377	[redacted]		Summit Creek	CP71-8.5S	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0378	[redacted]		Summit Creek	CP71-8.9N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0379	[redacted]		Summit Creek	CP71-10.9B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0380	[redacted]		Summit Creek	CP71-11.8B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0381	[redacted]		Summit Creek	CP71-14.0S	Line 13, Line 14,	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]				Line 61 & Line 6A	
Superior	SURCP0382			Summit Creek	CP71-14.1B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0383			Summit Creek	CP71-23.7E	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0384			Big Weirgor Creek	CP85-1.2S	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0385			Big Weirgor Creek	CP85-2.5B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0386			Big Weirgor Creek	CP85-5.2B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0387			Big Weirgor Creek	CP85-6.4B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0388			Summit Creek	CP71-32.3W / CP85-7.6W	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0389			Big Weirgor Creek	CP85-9.9B / CP88-2.4B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0391			Big Weirgor Creek	CP85-14.6E / CP88-7.0E	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0392			Big Weirgor Creek	CP85-19.0S / CP88-11.5S / CP94-7.2S	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0393			Chippewa River	CP85-25.3E / CP88-17.8E / CP94-13.6E	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0394			Chippewa River	CP85-31.9E / CP88-24.4E / CP94-20.0E	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0395			Chippewa River	CP85-37.5B / CP88-30.0B / CP94-26.1B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0396			Chippewa River	CP85-39.5N, CP88-32.0N, CP94-28.1N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0397			Chippewa River	CP88-36.7N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0398			Chippewa River	CP88-38.6W	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0399			Chippewa River	CP88-39.5W	Line 13, Line 14,	New nomenclature

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Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]				Line 61 & Line 6A	
Superior	SURCP0400			Chippewa River	CP88-39.8S	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0401			Chippewa River	CP88-40.4N	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0403			Thornapple River	CP94-4.8B	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0404			Flambeau River	CP100-2.8	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0405			Flambeau River	CP100-3.4	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0406			Flambeau River	CP100-3.7	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0407			Flambeau River	CP100-7.0	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0408			Jump River	CP110-1.4 / CP111-2.4	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0409			Jump River	CP110-2.1 / CP111-3.1	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0410			Jump River	CP110-7.4 / CP111-8.5	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0411			Jump River	CP110-8.6 / CP111-9.5	Line 13, Line 14, Line 61 & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0412			Yellow River	CP124-3.3	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0413			Yellow River	CP124-6.1	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0414			Yellow River	CP124-17.3	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0415			Yellow River		Line 13, Line 14, Line 61 & Line 6A	Not originally included in Appendix D
Superior	SURCP0416			Yellow River	CP124-21.5	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0417			Yellow River	CP124-24.9	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0418			Eau Claire River North Fork	CP132-2.7	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0419			Eau Claire River North Fork	CP132-5.5	Line 13, Line 14,	New nomenclature

ENBRIDGE

Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]				Line 61 & Line 6A	
Superior	SURCP0420			Eau Claire River North Fork	CP132-10.5	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0421			Eau Claire River North Fork	CP132-13.5	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0422			Eau Claire River North Fork	CP132-19.3	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0423			Eau Claire River North Fork	CP132-24.4	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0424			Eau Claire River North Fork	CP132-33.2	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0425			Popple River	CP144-11.0	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0426			Popple River	CP144-14.2	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0427			Popple River	CP144-17.4	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0428			Popple River	CP144-24.9	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0429			Popple River	CP144-4.0	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0430			Yellow River East Branch	CP169-2.6	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0431			Yellow River East Branch	CP169-5.5	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0432			Yellow River East Branch	CP169-15.8	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0433			Yellow River East Branch	CP169-21.8	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0434			Yellow River East Branch	CP169-27.2	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0435			Wisconsin River	CP201-1.5	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0436			Wisconsin River	CP201-2.0	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0437			Wisconsin River		Line 13, Line 14, Line 61 & Line 6A	Not originally included in Appendix D
Superior	SURCP0438			Wisconsin River	CP201-5.2	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0439			Wisconsin River		Line 13, Line 14, Line 61 & Line 6A	Not originally included in Appendix D
Superior	SURCP0440			Fox River	CP253-0.4	Line 13, Line 14,	New nomenclature

ENBRIDGE

Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]	[redacted]			Line 61 & Line 6A	
Superior	SURCP0441	[redacted]	[redacted]	Fox River	CP253-3.8	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0442	[redacted]	[redacted]	Fox River	CP253-7.6	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0443	[redacted]	[redacted]	Fox River	CP253-11.0	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0444	[redacted]	[redacted]	Fox River	CP261-2.1	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0445	[redacted]	[redacted]	Fox River	CP261-3.7	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0446	[redacted]	[redacted]	Crawfish River	CP279-5.9	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0447	[redacted]	[redacted]	Crawfish River	CP279-9.7	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0448	[redacted]	[redacted]	Crawfish River	CP279-17.3	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0449	[redacted]	[redacted]	Crawfish River	CP279-21.4	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0450	[redacted]	[redacted]	Crawfish River		Line 13, Line 14, Line 61 & Line 6A	Not originally included in Appendix D
Superior	SURCP0451	[redacted]	[redacted]	Maunesha River	CP291-0.8	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0452	[redacted]	[redacted]	Maunesha River	CP291-5.9	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0453	[redacted]	[redacted]	Maunesha River	CP291-10.7	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0454	[redacted]	[redacted]	Maunesha River	CP291-14.4	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0455	[redacted]	[redacted]	Rock River	CP313-0.7	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0456	[redacted]	[redacted]	Rock River	CP313-2.2	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0457	[redacted]	[redacted]	Rock River	CP313-2.8	Line 13, Line 14, Line 61 & Line 6A	New nomenclature
Superior	SURCP0458	[redacted]	[redacted]	Turtle Creek	CP337.3-2.2	Line 13 & Line 61	New nomenclature
Superior	SURCP0459	[redacted]	[redacted]	Turtle Creek	CP337.3-4.0	Line 13 & Line 61	New nomenclature
Superior	SURCP0460	[redacted]	[redacted]	Turtle Creek	CP337.3-7.8	Line 13 & Line 61	New nomenclature
Superior	SURCP0461	[redacted]	[redacted]	Turtle Creek	CP337.3-9.0	Line 13 & Line 61	New nomenclature

ENBRIDGE

Control Points with Proposed Changes							
Region	CP_ID	Longitude	Latitude	WaterCrossing	DOJ_CP_Names	Upstream Pipelines	Reason for Change
		[redacted]					
Superior	SURCP0462			Turtle Creek	CP337.3-17.5	Line 13 & Line 61	New nomenclature
Superior	SURCP0464			Red River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0468			Red River		Line 1, Line 2, Line 3, Line 4, Line 13, Line 65 & Line 67	Not originally included in Appendix D
Superior	SURCP0470			Chippewa River	CP85-19.2B / CP88-11.7B / CP94-7.5B	Line 13, Line 14, Line 61, & Line 6A	New nomenclature and duplicated control points
Superior	SURCP0472			Cass Lake		Line 1 & Line 2	Not originally included in Appendix D

Appendix 5 - PHMSA Reports from Lakehead Discharges [146]

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $100,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $1,000,000 as provided in 49 USC 60122.	OMB NO: 2137-0047 EXPIRATION DATE: 12/31/2016

U.S Department of Transportation Pipeline and Hazardous Materials Safety Administration	**Original Report Date:**	08/10/2017
	No.	20170242 - 22538 -------------------------- (DOT Use Only)

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0047. All responses to the collection of information are mandatory. Send comments regarding this burden or any other aspect of this collection of information, including suggestions for reducing the burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

INSTRUCTIONS

Important: *Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Community Web Page at http://www.phmsa.dot.gov/pipeline/library/forms.*

PART A - KEY REPORT INFORMATION

Report Type: *(select all that apply)*	**Original:**	**Supplemental:**	**Final:**
	Yes		**Yes**

Last Revision Date:	
1. Operator's OPS-issued Operator Identification Number (OPID):	11169
2. Name of Operator	ENBRIDGE ENERGY, LIMITED PARTNERSHIP
3. Address of Operator:	
3a. Street Address	1100 LOUISIANA, SUITE 3300
3b. City	HOUSTON
3c. State	Texas
3d. Zip Code	77002
4. Local time *(24-hr clock)* and date of the Accident:	07/13/2017 10:51
5. Location of Accident:	
Latitude:	[redacted]
Longitude:	[redacted]
6. National Response Center Report Number (if applicable):	1183969
7. Local time *(24-hr clock)* and date of initial telephonic report to the National Response Center (if applicable):	07/13/2017 12:16
8. Commodity released: *(select only one, based on predominant volume released)*	Crude Oil
- Specify Commodity Subtype:	
- If "Other" Subtype, Describe:	
- If Biofuel/Alternative Fuel and Commodity Subtype is Ethanol Blend, then % Ethanol Blend:	
- If Biofuel/Alternative Fuel and Commodity Subtype is Biodiesel, then Biodiesel Blend e.g. B2, B20, B100	
9. Estimated volume of commodity released unintentionally (Barrels):	1.59
10. Estimated volume of intentional and/or controlled release/blowdown (Barrels):	
11. Estimated volume of commodity recovered (Barrels):	1.59
12. Were there fatalities?	No
- If Yes, specify the number in each category:	
12a. Operator employees	
12b. Contractor employees working for the Operator	
12c. Non-Operator emergency responders	
12d. Workers working on the right-of-way, but NOT associated with this Operator	
12e. General public	
12f. Total fatalities (sum of above)	
13. Were there injuries requiring inpatient hospitalization?	No
- If Yes, specify the number in each category:	
13a. Operator employees	
13b. Contractor employees working for the Operator	
13c. Non-Operator emergency responders	
13d. Workers working on the right-of-way, but NOT associated with this Operator	
13e. General public	

13f. Total injuries (sum of above)	
14. Was the pipeline/facility shut down due to the Accident?	Yes
- If No, Explain:	
- If Yes, complete Questions 14a and 14b: *(use local time, 24-hr clock)*	
14a. Local time and date of shutdown:	07/13/2017 10:51
14b. Local time pipeline/facility restarted:	07/14/2017 03:58
- Still shut down? (* Supplemental Report Required)	
15. Did the commodity ignite?	No
16. Did the commodity explode?	No
17. Number of general public evacuated:	0
18. Time sequence *(use local time, 24-hour clock)*:	
18a. Local time Operator identified Accident - effective 7- 2014 changed to "Local time Operator identified failure":	07/13/2017 10:51
18b. Local time Operator resources arrived on site:	07/13/2017 10:51

PART B - ADDITIONAL LOCATION INFORMATION

1. Was the origin of the Accident onshore?	Yes
If Yes, Complete Questions (2-12)	
If No, Complete Questions (13-15)	
- If Onshore:	
2. State:	Illinois
3. Zip Code:	60448
4. City	Mokena
5. County or Parish	Will
6. Operator-designated location:	Milepost/Valve Station
Specify:	546
7. Pipeline/Facility name:	Mokena Station
8. Segment name/ID:	461.17-14/6-XV-1
9. Was Accident on Federal land, other than the Outer Continental Shelf (OCS)?	No
10. Location of Accident:	Originated on Operator-controlled property, but then flowed or migrated off the property
11. Area of Accident (as found):	Aboveground
Specify:	Typical aboveground facility piping or appurtenance
- If Other, Describe:	
Depth-of-Cover (in):	
12. Did Accident occur in a crossing?	No
- If Yes, specify type below:	
- If Bridge crossing –	
Cased/ Uncased:	
- If Railroad crossing –	
Cased/ Uncased/ Bored/drilled	
- If Road crossing –	
Cased/ Uncased/ Bored/drilled	
- If Water crossing –	
Cased/ Uncased	
- Name of body of water, if commonly known:	
- Approx. water depth (ft) at the point of the Accident:	
- Select:	
- If Offshore:	
13. Approximate water depth (ft) at the point of the Accident:	
14. Origin of Accident:	
- In State waters - Specify:	
- State:	
- Area:	
- Block/Tract #:	
- Nearest County/Parish:	
- On the Outer Continental Shelf (OCS) - Specify:	
- Area:	
- Block #:	
15. Area of Accident:	

PART C - ADDITIONAL FACILITY INFORMATION

1. Is the pipeline or facility:	Interstate
2. Part of system involved in Accident:	Onshore Pump/Meter Station Equipment and Piping
- If Onshore Breakout Tank or Storage Vessel, Including Attached Appurtenances, specify:	
3. Item involved in Accident:	Valve
- If Pipe, specify:	

3a. Nominal diameter of pipe (in):	
3b. Wall thickness (in):	
3c. SMYS (Specified Minimum Yield Strength) of pipe (psi):	
3d. Pipe specification:	
3e. Pipe Seam , specify:	
- If Other, Describe:	
3f. Pipe manufacturer:	
3g. Year of manufacture:	
3h. Pipeline coating type at point of Accident, specify:	
- If Other, Describe:	
- If Weld, including heat-affected zone, specify. If Pipe Girth Weld, 3a through 3h above are required:	
- If Other, Describe:	
- If Valve, specify:	Auxiliary or Other Valve
- If Mainline, specify:	
- If Other, Describe:	
3i. Manufactured by:	
3j. Year of manufacture:	
- If Tank/Vessel, specify:	
- If Other - Describe:	
- If Other, describe:	
4. Year item involved in Accident was installed:	1996
5. Material involved in Accident:	Carbon Steel
- If Material other than Carbon Steel, specify:	
6. Type of Accident Involved:	Leak
- If Mechanical Puncture – Specify Approx. size:	
in. (axial) by	
in. (circumferential)	
- If Leak - Select Type:	Connection Failure
- If Other, Describe:	
- If Rupture - Select Orientation:	
- If Other, Describe:	
Approx. size: in. (widest opening) by	
in. (length circumferentially or axially)	
- If Other – Describe:	

PART D - ADDITIONAL CONSEQUENCE INFORMATION

1. Wildlife impact:	No
1a. If Yes, specify all that apply:	
- Fish/aquatic	
- Birds	
- Terrestrial	
2. Soil contamination:	Yes
3. Long term impact assessment performed or planned:	No
4. Anticipated remediation:	No
4a. If Yes, specify all that apply:	
- Surface water	
- Groundwater	
- Soil	
- Vegetation	
- Wildlife	
5. Water contamination:	Yes
5a. If Yes, specify all that apply:	
- Ocean/Seawater	
- Surface	Yes
- Groundwater	
- Drinking water: *(Select one or both)*	
- Private Well	
- Public Water Intake	
5b. Estimated amount released in or reaching water (Barrels):	.04
5c. Name of body of water, if commonly known:	Enbridge owned retention pond
6. At the location of this Accident, had the pipeline segment or facility been identified as one that "could affect" a High Consequence Area (HCA) as determined in the Operator's Integrity Management Program?	Yes
7. Did the released commodity reach or occur in one or more High Consequence Area (HCA)?	Yes
7a. If Yes, specify HCA type(s): *(Select all that apply)*	
- Commercially Navigable Waterway:	
Was this HCA identified in the "could affect"	

determination for this Accident site in the Operator's Integrity Management Program?	
- High Population Area:	Yes
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	Yes
- Other Populated Area	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
- Unusually Sensitive Area (USA) - Drinking Water	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
- Unusually Sensitive Area (USA) - Ecological	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
8. Estimated cost to Operator – effective 12-2012, changed to "Estimated Property Damage":	
8a. Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator – effective 12-2012, "paid/reimbursed by the Operator" removed	$ [redacted]
8b. Estimated cost of commodity lost	$ [redacted]
8c. Estimated cost of Operator's property damage & repairs	$ [redacted]
8d. Estimated cost of Operator's emergency response	$ [redacted]
8e. Estimated cost of Operator's environmental remediation	$ [redacted]
8f. Estimated other costs	$ [redacted]
Describe:	
8g. Estimated total costs (sum of above) – effective 12-2012, changed to "Total estimated property damage (sum of above)"	$ [redacted]

PART E - ADDITIONAL OPERATING INFORMATION

1. Estimated pressure at the point and time of the Accident (psig):	11.00
2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig):	1,575.00
3. Describe the pressure on the system or facility relating to the Accident (psig):	Pressure did not exceed MOP
4. Not including pressure reductions required by PHMSA regulations (such as for repairs and pipe movement), was the system or facility relating to the Accident operating under an established pressure restriction with pressure limits below those normally allowed by the MOP?	No
- If Yes, Complete 4.a and 4.b below:	
4a. Did the pressure exceed this established pressure restriction?	
4b. Was this pressure restriction mandated by PHMSA or the State?	
5. Was "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend" selected in PART C, Question 2?	No
- If Yes - (*Complete 5a. – 5f below*) effective 12-2012, changed to *"(Complete 5.a – 5.e below)"*	
5a. Type of upstream valve used to initially isolate release source:	
5b. Type of downstream valve used to initially isolate release source:	
5c. Length of segment isolated between valves (ft):	
5d. Is the pipeline configured to accommodate internal inspection tools?	
- If No, Which physical features limit tool accommodation? (*select all that apply)*	
- Changes in line pipe diameter	
- Presence of unsuitable mainline valves	
- Tight or mitered pipe bends	
- Other passage restrictions (i.e. unbarred tee's, projecting instrumentation, etc.)	
- Extra thick pipe wall (applicable only for magnetic flux leakage internal inspection tools)	
- Other -	
- If Other, Describe:	
5e. For this pipeline, are there operational factors which significantly complicate the execution of an internal inspection tool run?	

- If Yes, Which operational factors complicate execution? (*select all that apply*)	
- Excessive debris or scale, wax, or other wall buildup	
- Low operating pressure(s)	
- Low flow or absence of flow	
- Incompatible commodity	
- Other -	
- If Other, Describe:	
5f. Function of pipeline system:	> 20% SMYS Regulated Trunkline/Transmission
6. Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Accident?	Yes
If Yes -	
6a. Was it operating at the time of the Accident?	Yes
6b. Was it fully functional at the time of the Accident?	Yes
6c. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?	No
6d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	No
7. Was a CPM leak detection system in place on the pipeline or facility involved in the Accident?	Yes
- If Yes:	
7a. Was it operating at the time of the Accident?	Yes
7b. Was it fully functional at the time of the Accident?	Yes
7c. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?	No
7d. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	No
8. How was the Accident initially identified for the Operator?	Local Operating Personnel, including contractors
- If Other, Specify:	
8a. If "Controller", "Local Operating Personnel", including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 8, specify:	Operator employee
9. Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contributing factor to the Accident?	No, the Operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: (provide an explanation for why the Operator did not investigate)
- If No, the Operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: *(provide an explanation for why the operator did not investigate)*	The leak was identified to be on a valve that is on pipe that was not affected by operations
- If Yes, specify investigation result(s): *(select all that apply)*	
- Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue	
- Investigation did NOT review work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue	
Provide an explanation for why not:	
- Investigation identified no control room issues	
- Investigation identified no controller issues	
- Investigation identified incorrect controller action or controller error	
- Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response	
- Investigation identified incorrect procedures	
- Investigation identified incorrect control room equipment operation	
- Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response	
- Investigation identified areas other than those above:	
Describe:	

PART F - DRUG & ALCOHOL TESTING INFORMATION

1. As a result of this Accident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
1a. Specify how many were tested:	
1b. Specify how many failed:	
2. As a result of this Accident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
2a. Specify how many were tested:	
2b. Specify how many failed:	

PART G – APPARENT CAUSE

Select only one box from PART G in shaded column on left representing the APPARENT Cause of the Accident, and answer the questions on the right. Describe secondary, contributing or root causes of the Accident in the narrative (PART H).

Apparent Cause:	G2 - Natural Force Damage

G1 - Corrosion Failure - only one **sub-cause** can be picked from shaded left-hand column

Corrosion Failure – Sub-Cause:	
- If External Corrosion:	
1. Results of visual examination:	
- If Other, Describe:	
2. Type of corrosion: *(select all that apply)*	
- Galvanic	
- Atmospheric	
- Stray Current	
- Microbiological	
- Selective Seam	
- Other:	
- If Other, Describe:	
3. The type(s) of corrosion selected in Question 2 is based on the following: *(select all that apply)*	
- Field examination	
- Determined by metallurgical analysis	
- Other:	
- If Other, Describe:	
4. Was the failed item buried under the ground?	
- If Yes :	
4a. Was failed item considered to be under cathodic protection at the time of the Accident?	
If Yes - Year protection started:	
4b. Was shielding, tenting, or disbonding of coating evident at the point of the Accident?	
4c. Has one or more Cathodic Protection Survey been conducted at the point of the Accident?	
If "Yes, CP Annual Survey" – Most recent year conducted:	
If "Yes, Close Interval Survey" – Most recent year conducted:	
If "Yes, Other CP Survey" – Most recent year conducted:	
- If No:	
4d. Was the failed item externally coated or painted?	
5. Was there observable damage to the coating or paint in the vicinity of the corrosion?	
- If Internal Corrosion:	
6. Results of visual examination:	
- Other:	
7. Type of corrosion *(select all that apply)*: -	
- Corrosive Commodity	
- Water drop-out/Acid	
- Microbiological	
- Erosion	
- Other:	
- If Other, Describe:	
8. The cause(s) of corrosion selected in Question 7 is based on the following *(select all that apply)*: -	
- Field examination	
- Determined by metallurgical analysis	
- Other:	

- If Other, Describe:	
9. Location of corrosion *(select all that apply)*: -	
- Low point in pipe	
- Elbow	
- Other:	
- If Other, Describe:	
10. Was the commodity treated with corrosion inhibitors or biocides?	
11. Was the interior coated or lined with protective coating?	
12. Were cleaning/dewatering pigs (or other operations) routinely utilized?	
13. Were corrosion coupons routinely utilized?	
Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Tank/Vessel.	
14. List the year of the most recent inspections:	
14a. API Std 653 Out-of-Service Inspection	
- No Out-of-Service Inspection completed	
14b. API Std 653 In-Service Inspection	
- No In-Service Inspection completed	
Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.	
15. Has one or more internal inspection tool collected data at the point of the Accident?	
15a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: -	
- Magnetic Flux Leakage Tool	
Most recent year:	
- Ultrasonic	
Most recent year:	
- Geometry	
Most recent year:	
- Caliper	
Most recent year:	
- Crack	
Most recent year:	
- Hard Spot	
Most recent year:	
- Combination Tool	
Most recent year:	
- Transverse Field/Triaxial	
Most recent year:	
- Other	
Most recent year:	
Describe:	
16. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
If Yes -	
Most recent year tested:	
Test pressure:	
17. Has one or more Direct Assessment been conducted on this segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident::	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site:	
Most recent year conducted:	
18. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	
18a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	

G2 - Natural Force Damage - only one **sub-cause** can be picked from shaded left-handed column	
Natural Force Damage – Sub-Cause:	Temperature
- If Earth Movement, NOT due to Heavy Rains/Floods:	
1. Specify:	
- If Other, Describe:	
- If Heavy Rains/Floods:	
2. Specify:	
- If Other, Describe:	
- If Lightning:	
3. Specify:	
- If Temperature:	
4. Specify:	Frost Heave
- If Other, Describe:	
- If Other Natural Force Damage:	
5. Describe:	
Complete the following if any Natural Force Damage sub-cause is selected.	
6. Were the natural forces causing the Accident generated in conjunction with an extreme weather event?	No
6a. If Yes, specify: *(select all that apply)*	
- Hurricane	
- Tropical Storm	
- Tornado	
- Other	
- If Other, Describe:	
G3 - Excavation Damage - only one **sub-cause** can be picked from shaded left-hand column	
Excavation Damage – Sub-Cause:	
- If Previous Damage due to Excavation Activity: Complete Questions 1-5 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.	
1. Has one or more internal inspection tool collected data at the point of the Accident?	
1a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: -	
- Magnetic Flux Leakage	
Most recent year conducted:	
- Ultrasonic	
Most recent year conducted:	
- Geometry	
Most recent year conducted:	
- Caliper	
Most recent year conducted:	
- Crack	
Most recent year conducted:	
- Hard Spot	
Most recent year conducted:	
- Combination Tool	
Most recent year conducted:	
- Transverse Field/Triaxial	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?	
3. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
4. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident:	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site:	
Most recent year conducted:	
5. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	

5a. If Yes, for each examination, conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
Complete the following if Excavation Damage by Third Party is selected as the sub-cause.	
6. Did the operator get prior notification of the excavation activity?	
6a. If Yes, Notification received from: *(select all that apply)* -	
- One-Call System	
- Excavator	
- Contractor	
- Landowner	
Complete the following mandatory CGA-DIRT Program questions if any Excavation Damage sub-cause is selected.	
7. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)?	
8. Right-of-Way where event occurred: *(select all that apply)* -	
- Public	
- If "Public", Specify:	
- Private	
- If "Private", Specify:	
- Pipeline Property/Easement	
- Power/Transmission Line	
- Railroad	
- Dedicated Public Utility Easement	
- Federal Land	
- Data not collected	
- Unknown/Other	
9. Type of excavator:	
10. Type of excavation equipment:	
11. Type of work performed:	
12. Was the One-Call Center notified?	
12a. If Yes, specify ticket number:	
12b. If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:	
13. Type of Locator:	
14. Were facility locate marks visible in the area of excavation?	
15. Were facilities marked correctly?	
16. Did the damage cause an interruption in service?	
16a. If Yes, specify duration of the interruption (hours)	
17. Description of the CGA-DIRT Root Cause *(select only the one predominant first level CGA-DIRT Root Cause and then, where available as a choice, the one predominant second level CGA-DIRT Root Cause as well):*	
Root Cause:	
- If One-Call Notification Practices Not Sufficient, specify:	
- If Locating Practices Not Sufficient, specify:	
- If Excavation Practices Not Sufficient, specify:	
- If Other/None of the Above, explain:	
G4 - Other Outside Force Damage - *only one **sub-cause** can be selected from the shaded left-hand column*	
Other Outside Force Damage – Sub-Cause:	
- If Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation:	
1. Vehicle/Equipment operated by:	
- If Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring:	
2. Select one or more of the following IF an extreme weather event was a factor:	
- Hurricane	
- Tropical Storm	
- Tornado	

- Heavy Rains/Flood	
- Other	
- If Other, Describe:	
- If Previous Mechanical Damage NOT Related to Excavation: Complete Questions 3-7 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.	
3. Has one or more internal inspection tool collected data at the point of the Accident?	
3a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	
Most recent year conducted:	
- Ultrasonic	
Most recent year conducted:	
- Geometry	
Most recent year conducted:	
- Caliper	
Most recent year conducted:	
- Crack	
Most recent year conducted:	
- Hard Spot	
Most recent year conducted:	
- Combination Tool	
Most recent year conducted:	
- Transverse Field/Triaxial	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
4. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?	
5. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
6. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident:	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site:	
Most recent year conducted:	
7. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	
7a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
- If Intentional Damage:	
8. Specify:	
- If Other, Describe:	
- If Other Outside Force Damage:	
9. Describe:	
G5 - Material Failure of Pipe or Weld - only one **sub-cause** can be selected from the shaded left-hand column	
Use this section to report material failures ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is "Pipe" or "Weld."	
Material Failure of Pipe or Weld – Sub-Cause:	
1. The sub-cause shown above is based on the following: *(select all that apply)*	

- Field Examination	
- Determined by Metallurgical Analysis	
- Other Analysis	
- If "Other Analysis", Describe:	
- Sub-cause is Tentative or Suspected; Still Under Investigation (Supplemental Report required)	
- If Construction, Installation, or Fabrication-related:	
2. List contributing factors: *(select all that apply)*	
- Fatigue or Vibration-related	
Specify:	
- If Other, Describe:	
- Mechanical Stress:	
- Other	
- If Other, Describe:	
- If Environmental Cracking-related:	
3. Specify:	
- If Other - Describe:	
Complete the following if any Material Failure of Pipe or Weld sub-cause is selected.	
4. Additional factors: (*select all that apply*):	
- Dent	
- Gouge	
- Pipe Bend	
- Arc Burn	
- Crack	
- Lack of Fusion	
- Lamination	
- Buckle	
- Wrinkle	
- Misalignment	
- Burnt Steel	
- Other:	
- If Other, Describe:	
5. Has one or more internal inspection tool collected data at the point of the Accident?	
5a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	
Most recent year run:	
- Ultrasonic	
Most recent year run:	
- Geometry	
Most recent year run:	
- Caliper	
Most recent year run:	
- Crack	
Most recent year run:	
- Hard Spot	
Most recent year run:	
- Combination Tool	
Most recent year run:	
- Transverse Field/Triaxial	
Most recent year run:	
- Other	
Most recent year run:	
Describe:	
6. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
7. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident -	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site -	
Most recent year conducted:	
8. Has one or more non-destructive examination(s) been conducted at the point of the Accident since January 1, 2002?	
8a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted: -	

- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
G6 – Equipment Failure - only one **sub-cause** can be selected from the shaded left-hand column	
Equipment Failure – Sub-Cause:	
- If Malfunction of Control/Relief Equipment:	
1. Specify: *(select all that apply)* -	
- Control Valve	
- Instrumentation	
- SCADA	
- Communications	
- Block Valve	
- Check Valve	
- Relief Valve	
- Power Failure	
- Stopple/Control Fitting	
- ESD System Failure	
- Other	
- If Other – Describe:	
- If Pump or Pump-related Equipment:	
2. Specify:	
- If Other – Describe:	
- If Threaded Connection/Coupling Failure:	
3. Specify:	
- If Other – Describe:	
- If Non-threaded Connection Failure:	
4. Specify:	
- If Other – Describe:	
- If Other Equipment Failure:	
5. Describe:	
Complete the following if any Equipment Failure sub-cause is selected.	
6. Additional factors that contributed to the equipment failure: *(select all that apply)*	
- Excessive vibration	
- Overpressurization	
- No support or loss of support	
- Manufacturing defect	
- Loss of electricity	
- Improper installation	
- Mismatched items (different manufacturer for tubing and tubing fittings)	
- Dissimilar metals	
- Breakdown of soft goods due to compatibility issues with transported commodity	
- Valve vault or valve can contributed to the release	
- Alarm/status failure	
- Misalignment	
- Thermal stress	
- Other	
- If Other, Describe:	
G7 - Incorrect Operation - only one **sub-cause** can be selected from the shaded left-hand column	
Incorrect Operation – Sub-Cause:	

- If Tank, Vessel, or Sump/Separator Allowed or Caused to Overfill or Overflow	
1. Specify:	
- If Other, Describe:	
- If Other Incorrect Operation	
2. Describe:	
Complete the following if any Incorrect Operation sub-cause is selected.	
3. Was this Accident related to *(select all that apply)*: -	
- Inadequate procedure	
- No procedure established	
- Failure to follow procedure	
- Other:	
- If Other, Describe:	
4. What category type was the activity that caused the Accident?	
5. Was the task(s) that led to the Accident identified as a covered task in your Operator Qualification Program?	
5a. If Yes, were the individuals performing the task(s) qualified for the task(s)?	

G8 - Other Accident Cause - only one **sub-cause** can be selected from the shaded left-hand column

Other Accident Cause – Sub-Cause:	
- If Miscellaneous:	
1. Describe:	
- If Unknown:	
2. Specify:	

PART H - NARRATIVE DESCRIPTION OF THE ACCIDENT

On July 13, 2017 at 10:51 AM, Enbridge local station technician noticed oil sheen on standing water in the graveled area near Line 14 trap and PCV area at the Mokena Station. Station technician called the Edmonton Control Center and Line 14 was immediately shut down and the station was isolated. Contract resources and Enbridge Pipeline Maintenance crews responded and discovered the source to be a small diameter threaded connection - valve packing and grease fitting on the buried portion of valve 461.17-14/6-XV. The majority of the 67 gallons released remained on site; however, approximately 1.47 gallons made it through the outflow of containment pond and off site.

The small diameter threaded fitting and piping that was leaking was removed and a threaded plug was installed. The repairs will be completed through an outage request. The cause of the release has been determined to be due to frost heave. Approximately 195 tons of contaminated soil and vegetation was disposed of at an approved site. The crude oil that left the site was cleaned up through removal of vegetation and absorbing the residual with absorbent pads.

PART I - PREPARER AND AUTHORIZED SIGNATURE

Preparer's Name	[redacted]
Preparer's Title	Compliance Analyst
Preparer's Telephone Number	[redacted]
Preparer's E-mail Address	[redacted]
Preparer's Facsimile Number	[redacted]
Authorized Signer Name	[redacted]
Authorized Signer Title	Supervisor US Pipeline Compliance
Authorized Signer Telephone Number	[redacted]
Authorized Signer Email	[redacted]
Date	08/10/2017

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $100,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $1,000,000 as provided in 49 USC 60122.	OMB NO: 2137-0047 EXPIRATION DATE: 8/31/2020

U.S Department of Transportation Pipeline and Hazardous Materials Safety Administration	**Original Report Date:**	11/17/2017
	No.	20170378 - 22827 -------------------------- (DOT Use Only)

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0047. All responses to the collection of information are mandatory. Send comments regarding this burden or any other aspect of this collection of information, including suggestions for reducing the burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

INSTRUCTIONS

Important: *Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Community Web Page at http://www.phmsa.dot.gov/pipeline/library/forms.*

PART A - KEY REPORT INFORMATION

Report Type: *(select all that apply)*	**Original:**	**Supplemental:**	**Final:**
	Yes		**Yes**

Last Revision Date:	
1. Operator's OPS-issued Operator Identification Number (OPID):	11169
2. Name of Operator	ENBRIDGE ENERGY, LIMITED PARTNERSHIP
3. Address of Operator:	
3a. Street Address	1100 LOUISIANA, SUITE 3300
3b. City	HOUSTON
3c. State	Texas
3d. Zip Code	77002
4. Local time *(24-hr clock)* and date of the Accident:	10/18/2017 08:29
5. Location of Accident:	
Latitude:	[redacted]
Longitude:	[redacted]
6. National Response Center Report Number (if applicable):	1193571
7. Local time *(24-hr clock)* and date of initial telephonic report to the National Response Center (if applicable):	10/18/2017 09:35
8. Commodity released: *(select only one, based on predominant volume released)*	Crude Oil
- Specify Commodity Subtype:	
- If "Other" Subtype, Describe:	
- If Biofuel/Alternative Fuel and Commodity Subtype is Ethanol Blend, then % Ethanol Blend:	
- If Biofuel/Alternative Fuel and Commodity Subtype is Biodiesel, then Biodiesel Blend e.g. B2, B20, B100	
9. Estimated volume of commodity released unintentionally (Barrels):	10.00
10. Estimated volume of intentional and/or controlled release/blowdown (Barrels):	
11. Estimated volume of commodity recovered (Barrels):	10.00
12. Were there fatalities?	No
- If Yes, specify the number in each category:	
12a. Operator employees	
12b. Contractor employees working for the Operator	
12c. Non-Operator emergency responders	
12d. Workers working on the right-of-way, but NOT associated with this Operator	
12e. General public	
12f. Total fatalities (sum of above)	
13. Were there injuries requiring inpatient hospitalization?	No
- If Yes, specify the number in each category:	
13a. Operator employees	
13b. Contractor employees working for the Operator	
13c. Non-Operator emergency responders	
13d. Workers working on the right-of-way, but NOT associated with this Operator	
13e. General public	

13f. Total injuries (sum of above)	
14. Was the pipeline/facility shut down due to the Accident?	Yes
- If No, Explain:	
- If Yes, complete Questions 14a and 14b: *(use local time, 24-hr clock)*	
14a. Local time and date of shutdown:	10/18/2017 08:29
14b. Local time pipeline/facility restarted:	10/18/2017 11:37
- Still shut down? (* Supplemental Report Required)	
15. Did the commodity ignite?	No
16. Did the commodity explode?	No
17. Number of general public evacuated:	0
18. Time sequence *(use local time, 24-hour clock)*:	
18a. Local time Operator identified Accident - effective 7- 2014 changed to "Local time Operator identified failure":	10/18/2017 08:29
18b. Local time Operator resources arrived on site:	10/18/2017 08:29

PART B - ADDITIONAL LOCATION INFORMATION

1. Was the origin of the Accident onshore?	Yes
If Yes, Complete Questions (2-12)	
If No, Complete Questions (13-15)	
- If Onshore:	
2. State:	Indiana
3. Zip Code:	46319
4. City	Griffith
5. County or Parish	Lake
6. Operator-designated location:	Milepost/Valve Station
Specify:	550
7. Pipeline/Facility name:	Griffith Terminal
8. Segment name/ID:	Booster Manifold 201 Bypass
9. Was Accident on Federal land, other than the Outer Continental Shelf (OCS)?	No
10. Location of Accident:	Totally contained on Operator-controlled property
11. Area of Accident (as found):	Aboveground
Specify:	Typical aboveground facility piping or appurtenance
- If Other, Describe:	
Depth-of-Cover (in):	
12. Did Accident occur in a crossing?	No
- If Yes, specify type below:	
- If Bridge crossing –	
Cased/ Uncased:	
- If Railroad crossing –	
Cased/ Uncased/ Bored/drilled	
- If Road crossing –	
Cased/ Uncased/ Bored/drilled	
- If Water crossing –	
Cased/ Uncased	
- Name of body of water, if commonly known:	
- Approx. water depth (ft) at the point of the Accident:	
- Select:	
- If Offshore:	
13. Approximate water depth (ft) at the point of the Accident:	
14. Origin of Accident:	
- In State waters - Specify:	
- State:	
- Area:	
- Block/Tract #:	
- Nearest County/Parish:	
- On the Outer Continental Shelf (OCS) - Specify:	
- Area:	
- Block #:	
15. Area of Accident:	

PART C - ADDITIONAL FACILITY INFORMATION

1. Is the pipeline or facility:	Interstate
2. Part of system involved in Accident:	Onshore Terminal/Tank Farm Equipment and Piping
- If Onshore Breakout Tank or Storage Vessel, Including Attached Appurtenances, specify:	
3. Item involved in Accident:	Weld, including heat-affected zone
- If Pipe, specify:	
3a. Nominal diameter of pipe (in):	34

3b. Wall thickness (in):	.375
3c. SMYS (Specified Minimum Yield Strength) of pipe (psi):	50,000
3d. Pipe specification:	API 5L
3e. Pipe Seam , specify:	DSAW
- If Other, Describe:	
3f. Pipe manufacturer:	NUC
3g. Year of manufacture:	2003
3h. Pipeline coating type at point of Accident, specify:	Paint
- If Other, Describe:	
- If Weld, including heat-affected zone, specify. If Pipe Girth Weld, 3a through 3h above are required:	Pipe Girth Weld
- If Other, Describe:	
- If Valve, specify:	
- If Mainline, specify:	
- If Other, Describe:	
3i. Manufactured by:	
3j. Year of manufacture:	
- If Tank/Vessel, specify:	
- If Other - Describe:	
- If Other, describe:	
4. Year item involved in Accident was installed:	2004
5. Material involved in Accident:	Carbon Steel
- If Material other than Carbon Steel, specify:	
6. Type of Accident Involved:	Leak
- If Mechanical Puncture – Specify Approx. size:	
in. (axial) by	
in. (circumferential)	
- If Leak - Select Type:	Pinhole
- If Other, Describe:	
- If Rupture - Select Orientation:	
- If Other, Describe:	
Approx. size: in. (widest opening) by	
in. (length circumferentially or axially)	
- If Other – Describe:	

PART D - ADDITIONAL CONSEQUENCE INFORMATION

1. Wildlife impact:	No
1a. If Yes, specify all that apply:	
- Fish/aquatic	
- Birds	
- Terrestrial	
2. Soil contamination:	Yes
3. Long term impact assessment performed or planned:	No
4. Anticipated remediation:	No
4a. If Yes, specify all that apply:	
- Surface water	
- Groundwater	
- Soil	
- Vegetation	
- Wildlife	
5. Water contamination:	No
5a. If Yes, specify all that apply:	
- Ocean/Seawater	
- Surface	
- Groundwater	
- Drinking water: *(Select one or both)*	
- Private Well	
- Public Water Intake	
5b. Estimated amount released in or reaching water (Barrels):	
5c. Name of body of water, if commonly known:	
6. At the location of this Accident, had the pipeline segment or facility been identified as one that "could affect" a High Consequence Area (HCA) as determined in the Operator's Integrity Management Program?	Yes
7. Did the released commodity reach or occur in one or more High Consequence Area (HCA)?	Yes
7a. If Yes, specify HCA type(s): *(Select all that apply)*	
- Commercially Navigable Waterway:	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's	

Integrity Management Program?	
- High Population Area:	Yes
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	Yes
- Other Populated Area	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
- Unusually Sensitive Area (USA) - Drinking Water	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
- Unusually Sensitive Area (USA) - Ecological	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
8. Estimated cost to Operator – effective 12-2012, changed to "Estimated Property Damage":	
8a. Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator – effective 12-2012, "paid/reimbursed by the Operator" removed	$ [redacted]
8b. Estimated cost of commodity lost	$ [redacted]
8c. Estimated cost of Operator's property damage & repairs	$ [redacted]
8d. Estimated cost of Operator's emergency response	$ [redacted]
8e. Estimated cost of Operator's environmental remediation	$ [redacted]
8f. Estimated other costs	$ [redacted]
Describe:	
8g. Estimated total costs (sum of above) – effective 12-2012, changed to "Total estimated property damage (sum of above)"	$ [redacted]

PART E - ADDITIONAL OPERATING INFORMATION

1. Estimated pressure at the point and time of the Accident (psig):	120.00
2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig):	1,400.00
3. Describe the pressure on the system or facility relating to the Accident (psig):	Pressure did not exceed MOP
4. Not including pressure reductions required by PHMSA regulations (such as for repairs and pipe movement), was the system or facility relating to the Accident operating under an established pressure restriction with pressure limits below those normally allowed by the MOP?	No
- If Yes, Complete 4.a and 4.b below:	
4a. Did the pressure exceed this established pressure restriction?	
4b. Was this pressure restriction mandated by PHMSA or the State?	
5. Was "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend" selected in PART C, Question 2?	No
- If Yes - (*Complete 5a. – 5f below*) effective 12-2012, changed to *"(Complete 5.a – 5.e below)"*	
5a. Type of upstream valve used to initially isolate release source:	
5b. Type of downstream valve used to initially isolate release source:	
5c. Length of segment isolated between valves (ft):	
5d. Is the pipeline configured to accommodate internal inspection tools?	
- If No, Which physical features limit tool accommodation? (*select all that apply*)	
- Changes in line pipe diameter	
- Presence of unsuitable mainline valves	
- Tight or mitered pipe bends	
- Other passage restrictions (i.e. unbarred tee's, projecting instrumentation, etc.)	
- Extra thick pipe wall (applicable only for magnetic flux leakage internal inspection tools)	
- Other -	
- If Other, Describe:	
5e. For this pipeline, are there operational factors which significantly complicate the execution of an internal inspection tool run?	
- If Yes, Which operational factors complicate execution? (*select all that apply*)	

- Excessive debris or scale, wax, or other wall buildup	
- Low operating pressure(s)	
- Low flow or absence of flow	
- Incompatible commodity	
- Other -	
- If Other, Describe:	
5f. Function of pipeline system:	> 20% SMYS Regulated Trunkline/Transmission
6. Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Accident?	Yes
If Yes -	
6a. Was it operating at the time of the Accident?	Yes
6b. Was it fully functional at the time of the Accident?	Yes
6c. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?	No
6d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	No
7. Was a CPM leak detection system in place on the pipeline or facility involved in the Accident?	No
- If Yes:	
7a. Was it operating at the time of the Accident?	
7b. Was it fully functional at the time of the Accident?	
7c. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?	
7d. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	
8. How was the Accident initially identified for the Operator?	Local Operating Personnel, including contractors
- If Other, Specify:	
8a. If "Controller", "Local Operating Personnel", including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 8, specify:	Operator employee
9. Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contributing factor to the Accident?	No, the Operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: (provide an explanation for why the Operator did not investigate)
- If No, the Operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: *(provide an explanation for why the operator did not investigate)*	Lack of Control Center involvement
- If Yes, specify investigation result(s): *(select all that apply)*	
- Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue	
- Investigation did NOT review work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue	
Provide an explanation for why not:	
- Investigation identified no control room issues	
- Investigation identified no controller issues	
- Investigation identified incorrect controller action or controller error	
- Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response	
- Investigation identified incorrect procedures	
- Investigation identified incorrect control room equipment operation	
- Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response	
- Investigation identified areas other than those above:	
Describe:	
PART F - DRUG & ALCOHOL TESTING INFORMATION	
1. As a result of this Accident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
1a. Specify how many were tested:	

1b. Specify how many failed:	
2. As a result of this Accident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
2a. Specify how many were tested:	
2b. Specify how many failed:	

PART G – APPARENT CAUSE

Select only one box from PART G in shaded column on left representing the APPARENT Cause of the Accident, and answer the questions on the right. Describe secondary, contributing or root causes of the Accident in the narrative (PART H).

Apparent Cause:	G1 - Corrosion Failure

G1 - Corrosion Failure - only one **sub-cause** can be picked from shaded left-hand column

Corrosion Failure – Sub-Cause:	Internal Corrosion
- If External Corrosion:	
1. Results of visual examination:	
- If Other, Describe:	
2. Type of corrosion: *(select all that apply)*	
- Galvanic	
- Atmospheric	
- Stray Current	
- Microbiological	
- Selective Seam	
- Other:	
- If Other, Describe:	
3. The type(s) of corrosion selected in Question 2 is based on the following: *(select all that apply)*	
- Field examination	
- Determined by metallurgical analysis	
- Other:	
- If Other, Describe:	
4. Was the failed item buried under the ground?	
- If Yes :	
4a. Was failed item considered to be under cathodic protection at the time of the Accident?	
If Yes - Year protection started:	
4b. Was shielding, tenting, or disbonding of coating evident at the point of the Accident?	
4c. Has one or more Cathodic Protection Survey been conducted at the point of the Accident?	
If "Yes, CP Annual Survey" – Most recent year conducted:	
If "Yes, Close Interval Survey" – Most recent year conducted:	
If "Yes, Other CP Survey" – Most recent year conducted:	
- If No:	
4d. Was the failed item externally coated or painted?	
5. Was there observable damage to the coating or paint in the vicinity of the corrosion?	
- If Internal Corrosion:	
6. Results of visual examination:	Localized Pitting
- Other:	
7. Type of corrosion *(select all that apply)*: -	
- Corrosive Commodity	
- Water drop-out/Acid	
- Microbiological	Yes
- Erosion	
- Other:	
- If Other, Describe:	
8. The cause(s) of corrosion selected in Question 7 is based on the following *(select all that apply)*: -	
- Field examination	Yes
- Determined by metallurgical analysis	
- Other:	
- If Other, Describe:	
9. Location of corrosion *(select all that apply)*: -	
- Low point in pipe	Yes
- Elbow	
- Other:	

- If Other, Describe:	
10. Was the commodity treated with corrosion inhibitors or biocides?	No
11. Was the interior coated or lined with protective coating?	No
12. Were cleaning/dewatering pigs (or other operations) routinely utilized?	Not applicable - Not mainline pipe
13. Were corrosion coupons routinely utilized?	Not applicable - Not mainline pipe
Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Tank/Vessel.	
14. List the year of the most recent inspections:	
14a. API Std 653 Out-of-Service Inspection	
- No Out-of-Service Inspection completed	
14b. API Std 653 In-Service Inspection	
- No In-Service Inspection completed	
Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.	
15. Has one or more internal inspection tool collected data at the point of the Accident?	No
15a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: -	
- Magnetic Flux Leakage Tool	
Most recent year:	
- Ultrasonic	
Most recent year:	
- Geometry	
Most recent year:	
- Caliper	
Most recent year:	
- Crack	
Most recent year:	
- Hard Spot	
Most recent year:	
- Combination Tool	
Most recent year:	
- Transverse Field/Triaxial	
Most recent year:	
- Other	
Most recent year:	
Describe:	
16. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	No
If Yes -	
Most recent year tested:	
Test pressure:	
17. Has one or more Direct Assessment been conducted on this segment?	No
- If Yes, and an investigative dig was conducted at the point of the Accident::	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site:	
Most recent year conducted:	
18. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	No
18a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
G2 - Natural Force Damage - only one **sub-cause** can be picked from shaded left-handed column	
Natural Force Damage – Sub-Cause:	
- If Earth Movement, NOT due to Heavy Rains/Floods:	
1. Specify:	

- If Other, Describe:	
- If Heavy Rains/Floods:	
2. Specify:	
- If Other, Describe:	
- If Lightning:	
3. Specify:	
- If Temperature:	
4. Specify:	
- If Other, Describe:	
- If Other Natural Force Damage:	
5. Describe:	
Complete the following if any Natural Force Damage sub-cause is selected.	
6. Were the natural forces causing the Accident generated in conjunction with an extreme weather event?	
6a. If Yes, specify: *(select all that apply)*	
- Hurricane	
- Tropical Storm	
- Tornado	
- Other	
- If Other, Describe:	
G3 - Excavation Damage - only one **sub-cause** can be picked from shaded left-hand column	
Excavation Damage – Sub-Cause:	
- If Previous Damage due to Excavation Activity: Complete Questions 1-5 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.	
1. Has one or more internal inspection tool collected data at the point of the Accident?	
1a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: -	
- Magnetic Flux Leakage	
Most recent year conducted:	
- Ultrasonic	
Most recent year conducted:	
- Geometry	
Most recent year conducted:	
- Caliper	
Most recent year conducted:	
- Crack	
Most recent year conducted:	
- Hard Spot	
Most recent year conducted:	
- Combination Tool	
Most recent year conducted:	
- Transverse Field/Triaxial	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?	
3. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
4. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident:	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site:	
Most recent year conducted:	
5. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	
5a. If Yes, for each examination, conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	

- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
Complete the following if Excavation Damage by Third Party is selected as the sub-cause.	
6. Did the operator get prior notification of the excavation activity?	
6a. If Yes, Notification received from: *(select all that apply)* -	
- One-Call System	
- Excavator	
- Contractor	
- Landowner	
Complete the following mandatory CGA-DIRT Program questions if any Excavation Damage sub-cause is selected.	
7. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)?	
8. Right-of-Way where event occurred: *(select all that apply)* -	
- Public	
- If "Public", Specify:	
- Private	
- If "Private", Specify:	
- Pipeline Property/Easement	
- Power/Transmission Line	
- Railroad	
- Dedicated Public Utility Easement	
- Federal Land	
- Data not collected	
- Unknown/Other	
9. Type of excavator:	
10. Type of excavation equipment:	
11. Type of work performed:	
12. Was the One-Call Center notified?	
12a. If Yes, specify ticket number:	
12b. If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:	
13. Type of Locator:	
14. Were facility locate marks visible in the area of excavation?	
15. Were facilities marked correctly?	
16. Did the damage cause an interruption in service?	
16a. If Yes, specify duration of the interruption (hours)	
17. Description of the CGA-DIRT Root Cause *(select only the one predominant first level CGA-DIRT Root Cause and then, where available as a choice, the one predominant second level CGA-DIRT Root Cause as well):*	
Root Cause:	
- If One-Call Notification Practices Not Sufficient, specify:	
- If Locating Practices Not Sufficient, specify:	
- If Excavation Practices Not Sufficient, specify:	
- If Other/None of the Above, explain:	
G4 - Other Outside Force Damage - *only one **sub-cause** can be selected from the shaded left-hand column*	
Other Outside Force Damage – Sub-Cause:	
- If Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation:	
1. Vehicle/Equipment operated by:	
- If Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring:	
2. Select one or more of the following IF an extreme weather event was a factor:	
- Hurricane	
- Tropical Storm	
- Tornado	
- Heavy Rains/Flood	
- Other	
- If Other, Describe:	
- If Previous Mechanical Damage NOT Related to Excavation: Complete Questions 3-7 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.	
3. Has one or more internal inspection tool collected data at the point of	

the Accident?	
3a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	
Most recent year conducted:	
- Ultrasonic	
Most recent year conducted:	
- Geometry	
Most recent year conducted:	
- Caliper	
Most recent year conducted:	
- Crack	
Most recent year conducted:	
- Hard Spot	
Most recent year conducted:	
- Combination Tool	
Most recent year conducted:	
- Transverse Field/Triaxial	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
4. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?	
5. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
6. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident:	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site:	
Most recent year conducted:	
7. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	
7a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
- If Intentional Damage:	
8. Specify:	
- If Other, Describe:	
- If Other Outside Force Damage:	
9. Describe:	
G5 - Material Failure of Pipe or Weld - only one **sub-cause** can be selected from the shaded left-hand column	
Use this section to report material failures ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is "Pipe" or "Weld."	
Material Failure of Pipe or Weld – Sub-Cause:	
1. The sub-cause shown above is based on the following: *(select all that apply)*	
- Field Examination	
- Determined by Metallurgical Analysis	
- Other Analysis	
- If "Other Analysis", Describe:	
- Sub-cause is Tentative or Suspected; Still Under Investigation (Supplemental Report required)	

- If Construction, Installation, or Fabrication-related:	
2. List contributing factors: *(select all that apply)*	
- Fatigue or Vibration-related	
Specify:	
- If Other, Describe:	
- Mechanical Stress:	
- Other	
- If Other, Describe:	
- If Environmental Cracking-related:	
3. Specify:	
- If Other - Describe:	
Complete the following if any Material Failure of Pipe or Weld sub-cause is selected.	
4. Additional factors: (*select all that apply*):	
- Dent	
- Gouge	
- Pipe Bend	
- Arc Burn	
- Crack	
- Lack of Fusion	
- Lamination	
- Buckle	
- Wrinkle	
- Misalignment	
- Burnt Steel	
- Other:	
- If Other, Describe:	
5. Has one or more internal inspection tool collected data at the point of the Accident?	
5a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	
Most recent year run:	
- Ultrasonic	
Most recent year run:	
- Geometry	
Most recent year run:	
- Caliper	
Most recent year run:	
- Crack	
Most recent year run:	
- Hard Spot	
Most recent year run:	
- Combination Tool	
Most recent year run:	
- Transverse Field/Triaxial	
Most recent year run:	
- Other	
Most recent year run:	
Describe:	
6. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
7. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident -	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site -	
Most recent year conducted:	
8. Has one or more non-destructive examination(s) been conducted at the point of the Accident since January 1, 2002?	
8a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted: -	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	

- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
G6 – Equipment Failure - only one **sub-cause** can be selected from the shaded left-hand column	
Equipment Failure – Sub-Cause:	
- If Malfunction of Control/Relief Equipment:	
1. Specify: *(select all that apply)* -	
- Control Valve	
- Instrumentation	
- SCADA	
- Communications	
- Block Valve	
- Check Valve	
- Relief Valve	
- Power Failure	
- Stopple/Control Fitting	
- ESD System Failure	
- Other	
- If Other – Describe:	
- If Pump or Pump-related Equipment:	
2. Specify:	
- If Other – Describe:	
- If Threaded Connection/Coupling Failure:	
3. Specify:	
- If Other – Describe:	
- If Non-threaded Connection Failure:	
4. Specify:	
- If Other – Describe:	
- If Other Equipment Failure:	
5. Describe:	
Complete the following if any Equipment Failure sub-cause is selected.	
6. Additional factors that contributed to the equipment failure: *(select all that apply)*	
- Excessive vibration	
- Overpressurization	
- No support or loss of support	
- Manufacturing defect	
- Loss of electricity	
- Improper installation	
- Mismatched items (different manufacturer for tubing and tubing fittings)	
- Dissimilar metals	
- Breakdown of soft goods due to compatibility issues with transported commodity	
- Valve vault or valve can contributed to the release	
- Alarm/status failure	
- Misalignment	
- Thermal stress	
- Other	
- If Other, Describe:	
G7 - Incorrect Operation - only one **sub-cause** can be selected from the shaded left-hand column	
Incorrect Operation – Sub-Cause:	
- If Tank, Vessel, or Sump/Separator Allowed or Caused to Overfill or Overflow	
1. Specify:	
- If Other, Describe:	
- If Other Incorrect Operation	

2. Describe:	
Complete the following if any Incorrect Operation sub-cause is selected.	
3. Was this Accident related to *(select all that apply)*: -	
- Inadequate procedure	
- No procedure established	
- Failure to follow procedure	
- Other:	
- If Other, Describe:	
4. What category type was the activity that caused the Accident?	
5. Was the task(s) that led to the Accident identified as a covered task in your Operator Qualification Program?	
5a. If Yes, were the individuals performing the task(s) qualified for the task(s)?	

G8 - Other Accident Cause - only one **sub-cause** can be selected from the shaded left-hand column

Other Accident Cause – Sub-Cause:	
- If Miscellaneous:	
1. Describe:	
- If Unknown:	
2. Specify:	

PART H - NARRATIVE DESCRIPTION OF THE ACCIDENT

On October 18, 2017 at approximately 8:29 AM CDT field personnel discovered crude oil in station ditch between tanks 70 and 71. The Edmonton Control Center was contacted and the facility was shut down at 8:29 AM CDT. The source of the release was identified to be a leaking bypass tee on the 34" above grade station piping near booster manifold 201. The leaking bypass tee was removed and the booster header was blinded off where the tee started. The facility was restarted at 11:37 AM CDT on October 18.

Further investigation determined the cause to be internal corrosion on the girth weld. Approximately 278 yards of contaminated soil was removed from release site.

PART I - PREPARER AND AUTHORIZED SIGNATURE

Preparer's Name	[redacted]
Preparer's Title	Compliance Analyst
Preparer's Telephone Number	[redacted]
Preparer's E-mail Address	[redacted]
Preparer's Facsimile Number	[redacted]
Authorized Signer Name	[redacted]
Authorized Signer Title	Supervisor US Pipeline Compliance
Authorized Signer Telephone Number	[redacted]
Authorized Signer Email	[redacted]
Date	11/16/2017

REDACTED SUBMITTAL - PUBLIC COPY

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $100,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $1,000,000 as provided in 49 USC 60122.	OMB NO: 2137-0047 EXPIRATION DATE: 8/31/2020

U.S Department of Transportation Pipeline and Hazardous Materials Safety Administration	**Original Report Date:**	12/13/2017
	No.	20170410 - 22936 -------------------------- (DOT Use Only)

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0047. All responses to the collection of information are mandatory. Send comments regarding this burden or any other aspect of this collection of information, including suggestions for reducing the burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

INSTRUCTIONS

Important: *Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Community Web Page at http://www.phmsa.dot.gov/pipeline/library/forms.*

PART A - KEY REPORT INFORMATION

Report Type: *(select all that apply)*	**Original:**	**Supplemental:**	**Final:**
	Yes		**Yes**

Last Revision Date:	
1. Operator's OPS-issued Operator Identification Number (OPID):	11169
2. Name of Operator	ENBRIDGE ENERGY, LIMITED PARTNERSHIP
3. Address of Operator:	
3a. Street Address	1100 LOUISIANA, SUITE 3300
3b. City	HOUSTON
3c. State	Texas
3d. Zip Code	77002
4. Local time *(24-hr clock)* and date of the Accident:	11/14/2017 07:35
5. Location of Accident:	
Latitude:	[redacted]
Longitude:	
6. National Response Center Report Number (if applicable):	NRC Notification Not Required
7. Local time *(24-hr clock)* and date of initial telephonic report to the National Response Center (if applicable):	
8. Commodity released: *(select only one, based on predominant volume released)*	Crude Oil
- Specify Commodity Subtype:	
- If "Other" Subtype, Describe:	
- If Biofuel/Alternative Fuel and Commodity Subtype is Ethanol Blend, then % Ethanol Blend:	
- If Biofuel/Alternative Fuel and Commodity Subtype is Biodiesel, then Biodiesel Blend e.g. B2, B20, B100	
9. Estimated volume of commodity released unintentionally (Barrels):	1.76
10. Estimated volume of intentional and/or controlled release/blowdown (Barrels):	
11. Estimated volume of commodity recovered (Barrels):	1.76
12. Were there fatalities?	No
- If Yes, specify the number in each category:	
12a. Operator employees	
12b. Contractor employees working for the Operator	
12c. Non-Operator emergency responders	
12d. Workers working on the right-of-way, but NOT associated with this Operator	
12e. General public	
12f. Total fatalities (sum of above)	
13. Were there injuries requiring inpatient hospitalization?	No
- If Yes, specify the number in each category:	
13a. Operator employees	
13b. Contractor employees working for the Operator	
13c. Non-Operator emergency responders	
13d. Workers working on the right-of-way, but NOT associated with this Operator	
13e. General public	

13f. Total injuries (sum of above)	
14. Was the pipeline/facility shut down due to the Accident?	No
- If No, Explain:	Mixer was locked out
- If Yes, complete Questions 14a and 14b: *(use local time, 24-hr clock)*	
14a. Local time and date of shutdown:	
14b. Local time pipeline/facility restarted:	
- Still shut down? (* Supplemental Report Required)	
15. Did the commodity ignite?	No
16. Did the commodity explode?	No
17. Number of general public evacuated:	0
18. Time sequence *(use local time, 24-hour clock)*:	
18a. Local time Operator identified Accident - effective 7- 2014 changed to "Local time Operator identified failure":	11/14/2017 07:35
18b. Local time Operator resources arrived on site:	11/14/2017 07:35

PART B - ADDITIONAL LOCATION INFORMATION

1. Was the origin of the Accident onshore?	Yes
If Yes, Complete Questions (2-12)	
If No, Complete Questions (13-15)	
- If Onshore:	
2. State:	Wisconsin
3. Zip Code:	54880
4. City	Superior
5. County or Parish	Douglas
6. Operator-designated location:	Milepost/Valve Station
Specify:	1096
7. Pipeline/Facility name:	Superior Terminal
8. Segment name/ID:	Tank 45 Mixer
9. Was Accident on Federal land, other than the Outer Continental Shelf (OCS)?	No
10. Location of Accident:	Totally contained on Operator-controlled property
11. Area of Accident (as found):	Tank, including attached appurtenances
Specify:	
- If Other, Describe:	
Depth-of-Cover (in):	
12. Did Accident occur in a crossing?	No
- If Yes, specify type below:	
- If Bridge crossing –	
Cased/ Uncased:	
- If Railroad crossing –	
Cased/ Uncased/ Bored/drilled	
- If Road crossing –	
Cased/ Uncased/ Bored/drilled	
- If Water crossing –	
Cased/ Uncased	
- Name of body of water, if commonly known:	
- Approx. water depth (ft) at the point of the Accident:	
- Select:	
- If Offshore:	
13. Approximate water depth (ft) at the point of the Accident:	
14. Origin of Accident:	
- In State waters - Specify:	
- State:	
- Area:	
- Block/Tract #:	
- Nearest County/Parish:	
- On the Outer Continental Shelf (OCS) - Specify:	
- Area:	
- Block #:	
15. Area of Accident:	

PART C - ADDITIONAL FACILITY INFORMATION

1. Is the pipeline or facility:	Interstate
2. Part of system involved in Accident:	Onshore Breakout Tank or Storage Vessel, including Attached Appurtenances
- If Onshore Breakout Tank or Storage Vessel, Including Attached Appurtenances, specify:	Atmospheric or Low Pressure
3. Item involved in Accident:	Tank/Vessel
- If Pipe, specify:	

3a. Nominal diameter of pipe (in):	
3b. Wall thickness (in):	
3c. SMYS (Specified Minimum Yield Strength) of pipe (psi):	
3d. Pipe specification:	
3e. Pipe Seam , specify:	
- If Other, Describe:	
3f. Pipe manufacturer:	
3g. Year of manufacture:	
3h. Pipeline coating type at point of Accident, specify:	
- If Other, Describe:	
- If Weld, including heat-affected zone, specify. If Pipe Girth Weld, 3a through 3h above are required:	
- If Other, Describe:	
- If Valve, specify:	
- If Mainline, specify:	
- If Other, Describe:	
3i. Manufactured by:	
3j. Year of manufacture:	
- If Tank/Vessel, specify:	Mixer
- If Other - Describe:	
- If Other, describe:	
4. Year item involved in Accident was installed:	2015
5. Material involved in Accident:	Carbon Steel
- If Material other than Carbon Steel, specify:	
6. Type of Accident Involved:	Leak
- If Mechanical Puncture – Specify Approx. size:	
in. (axial) by	
in. (circumferential)	
- If Leak - Select Type:	Seal or Packing
- If Other, Describe:	
- If Rupture - Select Orientation:	
- If Other, Describe:	
Approx. size: in. (widest opening) by	
in. (length circumferentially or axially)	
- If Other – Describe:	
PART D - ADDITIONAL CONSEQUENCE INFORMATION	
1. Wildlife impact:	No
1a. If Yes, specify all that apply:	
- Fish/aquatic	
- Birds	
- Terrestrial	
2. Soil contamination:	Yes
3. Long term impact assessment performed or planned:	No
4. Anticipated remediation:	No
4a. If Yes, specify all that apply:	
- Surface water	
- Groundwater	
- Soil	
- Vegetation	
- Wildlife	
5. Water contamination:	No
5a. If Yes, specify all that apply:	
- Ocean/Seawater	
- Surface	
- Groundwater	
- Drinking water: *(Select one or both)*	
- Private Well	
- Public Water Intake	
5b. Estimated amount released in or reaching water (Barrels):	
5c. Name of body of water, if commonly known:	
6. At the location of this Accident, had the pipeline segment or facility been identified as one that "could affect" a High Consequence Area (HCA) as determined in the Operator's Integrity Management Program?	Yes
7. Did the released commodity reach or occur in one or more High Consequence Area (HCA)?	Yes
7a. If Yes, specify HCA type(s): *(Select all that apply)*	
- Commercially Navigable Waterway:	Yes
Was this HCA identified in the "could affect"	Yes

determination for this Accident site in the Operator's Integrity Management Program?	
- High Population Area:	Yes
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	Yes
- Other Populated Area	Yes
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	Yes
- Unusually Sensitive Area (USA) - Drinking Water	Yes
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	Yes
- Unusually Sensitive Area (USA) - Ecological	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
8. Estimated cost to Operator – effective 12-2012, changed to "Estimated Property Damage":	
8a. Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator – effective 12-2012, "paid/reimbursed by the Operator" removed	$ [redacted]
8b. Estimated cost of commodity lost	$ [redacted]
8c. Estimated cost of Operator's property damage & repairs	$ [redacted]
8d. Estimated cost of Operator's emergency response	$ [redacted]
8e. Estimated cost of Operator's environmental remediation	$ [redacted]
8f. Estimated other costs	$ [redacted]
Describe:	
8g. Estimated total costs (sum of above) – effective 12-2012, changed to "Total estimated property damage (sum of above)"	$ [redacted]

PART E - ADDITIONAL OPERATING INFORMATION

1. Estimated pressure at the point and time of the Accident (psig):	.00
2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig):	15.00
3. Describe the pressure on the system or facility relating to the Accident (psig):	Pressure did not exceed MOP
4. Not including pressure reductions required by PHMSA regulations (such as for repairs and pipe movement), was the system or facility relating to the Accident operating under an established pressure restriction with pressure limits below those normally allowed by the MOP?	No
- If Yes, Complete 4.a and 4.b below:	
4a. Did the pressure exceed this established pressure restriction?	
4b. Was this pressure restriction mandated by PHMSA or the State?	
5. Was "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend" selected in PART C, Question 2?	No
- If Yes - (*Complete 5a. – 5f below*) effective 12-2012, changed to *"(Complete 5.a – 5.e below)"*	
5a. Type of upstream valve used to initially isolate release source:	
5b. Type of downstream valve used to initially isolate release source:	
5c. Length of segment isolated between valves (ft):	
5d. Is the pipeline configured to accommodate internal inspection tools?	
- If No, Which physical features limit tool accommodation? (*select all that apply)*	
- Changes in line pipe diameter	
- Presence of unsuitable mainline valves	
- Tight or mitered pipe bends	
- Other passage restrictions (i.e. unbarred tee's, projecting instrumentation, etc.)	
- Extra thick pipe wall (applicable only for magnetic flux leakage internal inspection tools)	
- Other -	
- If Other, Describe:	
5e. For this pipeline, are there operational factors which significantly complicate the execution of an internal inspection tool run?	

- If Yes, Which operational factors complicate execution? (*select all that apply*)	
- Excessive debris or scale, wax, or other wall buildup	
- Low operating pressure(s)	
- Low flow or absence of flow	
- Incompatible commodity	
- Other -	
- If Other, Describe:	
5f. Function of pipeline system:	> 20% SMYS Regulated Trunkline/Transmission
6. Was a Supervisory Control and Data Acquisition (SCADA)-based system in place on the pipeline or facility involved in the Accident?	Yes
If Yes -	
6a. Was it operating at the time of the Accident?	Yes
6b. Was it fully functional at the time of the Accident?	Yes
6c. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?	No
6d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	No
7. Was a CPM leak detection system in place on the pipeline or facility involved in the Accident?	No
- If Yes:	
7a. Was it operating at the time of the Accident?	
7b. Was it fully functional at the time of the Accident?	
7c. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?	
7d. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	
8. How was the Accident initially identified for the Operator?	Local Operating Personnel, including contractors
- If Other, Specify:	
8a. If "Controller", "Local Operating Personnel", including contractors", "Air Patrol", or "Ground Patrol by Operator or its contractor" is selected in Question 8, specify:	Operator employee
9. Was an investigation initiated into whether or not the controller(s) or control room issues were the cause of or a contributing factor to the Accident?	No, the Operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: (provide an explanation for why the Operator did not investigate)
- If No, the Operator did not find that an investigation of the controller(s) actions or control room issues was necessary due to: *(provide an explanation for why the operator did not investigate)*	Field identified and lack of Control Center involvement
- If Yes, specify investigation result(s): *(select all that apply)*	
- Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue	
- Investigation did NOT review work schedule rotations, continuous hours of service (while working for the Operator), and other factors associated with fatigue	
Provide an explanation for why not:	
- Investigation identified no control room issues	
- Investigation identified no controller issues	
- Investigation identified incorrect controller action or controller error	
- Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response	
- Investigation identified incorrect procedures	
- Investigation identified incorrect control room equipment operation	
- Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response	
- Investigation identified areas other than those above:	
Describe:	

PART F - DRUG & ALCOHOL TESTING INFORMATION

1. As a result of this Accident, were any Operator employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
1a. Specify how many were tested:	
1b. Specify how many failed:	
2. As a result of this Accident, were any Operator contractor employees tested under the post-accident drug and alcohol testing requirements of DOT's Drug & Alcohol Testing regulations?	No
- If Yes:	
2a. Specify how many were tested:	
2b. Specify how many failed:	

PART G – APPARENT CAUSE

Select only one box from PART G in shaded column on left representing the APPARENT Cause of the Accident, and answer the questions on the right. Describe secondary, contributing or root causes of the Accident in the narrative (PART H).

Apparent Cause:	G6 - Equipment Failure

G1 - Corrosion Failure - only one **sub-cause** can be picked from shaded left-hand column

Corrosion Failure – Sub-Cause:	
- If External Corrosion:	
1. Results of visual examination:	
- If Other, Describe:	
2. Type of corrosion: *(select all that apply)*	
- Galvanic	
- Atmospheric	
- Stray Current	
- Microbiological	
- Selective Seam	
- Other:	
- If Other, Describe:	
3. The type(s) of corrosion selected in Question 2 is based on the following: *(select all that apply)*	
- Field examination	
- Determined by metallurgical analysis	
- Other:	
- If Other, Describe:	
4. Was the failed item buried under the ground?	
- If Yes :	
4a. Was failed item considered to be under cathodic protection at the time of the Accident?	
If Yes - Year protection started:	
4b. Was shielding, tenting, or disbonding of coating evident at the point of the Accident?	
4c. Has one or more Cathodic Protection Survey been conducted at the point of the Accident?	
If "Yes, CP Annual Survey" – Most recent year conducted:	
If "Yes, Close Interval Survey" – Most recent year conducted:	
If "Yes, Other CP Survey" – Most recent year conducted:	
- If No:	
4d. Was the failed item externally coated or painted?	
5. Was there observable damage to the coating or paint in the vicinity of the corrosion?	
- If Internal Corrosion:	
6. Results of visual examination:	
- Other:	
7. Type of corrosion *(select all that apply)*: -	
- Corrosive Commodity	
- Water drop-out/Acid	
- Microbiological	
- Erosion	
- Other:	
- If Other, Describe:	
8. The cause(s) of corrosion selected in Question 7 is based on the following *(select all that apply)*: -	
- Field examination	
- Determined by metallurgical analysis	
- Other:	

- If Other, Describe:	
9. Location of corrosion *(select all that apply)*: -	
- Low point in pipe	
- Elbow	
- Other:	
- If Other, Describe:	
10. Was the commodity treated with corrosion inhibitors or biocides?	
11. Was the interior coated or lined with protective coating?	
12. Were cleaning/dewatering pigs (or other operations) routinely utilized?	
13. Were corrosion coupons routinely utilized?	
Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Tank/Vessel.	
14. List the year of the most recent inspections:	
14a. API Std 653 Out-of-Service Inspection	
- No Out-of-Service Inspection completed	
14b. API Std 653 In-Service Inspection	
- No In-Service Inspection completed	
Complete the following if any Corrosion Failure sub-cause is selected AND the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.	
15. Has one or more internal inspection tool collected data at the point of the Accident?	
15a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: -	
- Magnetic Flux Leakage Tool	
Most recent year:	
- Ultrasonic	
Most recent year:	
- Geometry	
Most recent year:	
- Caliper	
Most recent year:	
- Crack	
Most recent year:	
- Hard Spot	
Most recent year:	
- Combination Tool	
Most recent year:	
- Transverse Field/Triaxial	
Most recent year:	
- Other	
Most recent year:	
Describe:	
16. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
If Yes -	
Most recent year tested:	
Test pressure:	
17. Has one or more Direct Assessment been conducted on this segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident::	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site:	
Most recent year conducted:	
18. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	
18a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	

G2 - Natural Force Damage - only one **sub-cause** can be picked from shaded left-handed column	
Natural Force Damage – Sub-Cause:	
- If Earth Movement, NOT due to Heavy Rains/Floods:	
1. Specify:	
- If Other, Describe:	
- If Heavy Rains/Floods:	
2. Specify:	
- If Other, Describe:	
- If Lightning:	
3. Specify:	
- If Temperature:	
4. Specify:	
- If Other, Describe:	
- If Other Natural Force Damage:	
5. Describe:	
Complete the following if any Natural Force Damage sub-cause is selected.	
6. Were the natural forces causing the Accident generated in conjunction with an extreme weather event?	
6a. If Yes, specify: *(select all that apply)*	
- Hurricane	
- Tropical Storm	
- Tornado	
- Other	
- If Other, Describe:	
G3 - Excavation Damage - only one **sub-cause** can be picked from shaded left-hand column	
Excavation Damage – Sub-Cause:	
- If Previous Damage due to Excavation Activity: Complete Questions 1-5 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.	
1. Has one or more internal inspection tool collected data at the point of the Accident?	
1a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run: -	
- Magnetic Flux Leakage	
Most recent year conducted:	
- Ultrasonic	
Most recent year conducted:	
- Geometry	
Most recent year conducted:	
- Caliper	
Most recent year conducted:	
- Crack	
Most recent year conducted:	
- Hard Spot	
Most recent year conducted:	
- Combination Tool	
Most recent year conducted:	
- Transverse Field/Triaxial	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
2. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?	
3. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
4. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident:	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site:	
Most recent year conducted:	
5. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	

5a. If Yes, for each examination, conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
Complete the following if Excavation Damage by Third Party is selected as the sub-cause.	
6. Did the operator get prior notification of the excavation activity?	
6a. If Yes, Notification received from: *(select all that apply)* -	
- One-Call System	
- Excavator	
- Contractor	
- Landowner	
Complete the following mandatory CGA-DIRT Program questions if any Excavation Damage sub-cause is selected.	
7. Do you want PHMSA to upload the following information to CGA-DIRT (www.cga-dirt.com)?	
8. Right-of-Way where event occurred: *(select all that apply)* -	
- Public	
- If "Public", Specify:	
- Private	
- If "Private", Specify:	
- Pipeline Property/Easement	
- Power/Transmission Line	
- Railroad	
- Dedicated Public Utility Easement	
- Federal Land	
- Data not collected	
- Unknown/Other	
9. Type of excavator:	
10. Type of excavation equipment:	
11. Type of work performed:	
12. Was the One-Call Center notified?	
12a. If Yes, specify ticket number:	
12b. If this is a State where more than a single One-Call Center exists, list the name of the One-Call Center notified:	
13. Type of Locator:	
14. Were facility locate marks visible in the area of excavation?	
15. Were facilities marked correctly?	
16. Did the damage cause an interruption in service?	
16a. If Yes, specify duration of the interruption (hours)	
17. Description of the CGA-DIRT Root Cause *(select only the one predominant first level CGA-DIRT Root Cause and then, where available as a choice, the one predominant second level CGA-DIRT Root Cause as well):*	
Root Cause:	
- If One-Call Notification Practices Not Sufficient, specify:	
- If Locating Practices Not Sufficient, specify:	
- If Excavation Practices Not Sufficient, specify:	
- If Other/None of the Above, explain:	
G4 - Other Outside Force Damage - *only one **sub-cause** can be selected from the shaded left-hand column*	
Other Outside Force Damage – Sub-Cause:	
- If Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation:	
1. Vehicle/Equipment operated by:	
- If Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring:	
2. Select one or more of the following IF an extreme weather event was a factor:	
- Hurricane	
- Tropical Storm	
- Tornado	

- Heavy Rains/Flood	
- Other	
- If Other, Describe:	
- If Previous Mechanical Damage NOT Related to Excavation: Complete Questions 3-7 ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is Pipe or Weld.	
3. Has one or more internal inspection tool collected data at the point of the Accident?	
3a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	
Most recent year conducted:	
- Ultrasonic	
Most recent year conducted:	
- Geometry	
Most recent year conducted:	
- Caliper	
Most recent year conducted:	
- Crack	
Most recent year conducted:	
- Hard Spot	
Most recent year conducted:	
- Combination Tool	
Most recent year conducted:	
- Transverse Field/Triaxial	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
4. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained?	
5. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
6. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident:	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site:	
Most recent year conducted:	
7. Has one or more non-destructive examination been conducted at the point of the Accident since January 1, 2002?	
7a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted:	
- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
- If Intentional Damage:	
8. Specify:	
- If Other, Describe:	
- If Other Outside Force Damage:	
9. Describe:	
G5 - Material Failure of Pipe or Weld - only one **sub-cause** can be selected from the shaded left-hand column	
Use this section to report material failures ONLY IF the "Item Involved in Accident" (from PART C, Question 3) is "Pipe" or "Weld."	
Material Failure of Pipe or Weld – Sub-Cause:	
1. The sub-cause shown above is based on the following: *(select all that apply)*	

- Field Examination	
- Determined by Metallurgical Analysis	
- Other Analysis	
- If "Other Analysis", Describe:	
- Sub-cause is Tentative or Suspected; Still Under Investigation (Supplemental Report required)	
- If Construction, Installation, or Fabrication-related:	
2. List contributing factors: *(select all that apply)*	
- Fatigue or Vibration-related	
Specify:	
- If Other, Describe:	
- Mechanical Stress:	
- Other	
- If Other, Describe:	
- If Environmental Cracking-related:	
3. Specify:	
- If Other - Describe:	
Complete the following if any Material Failure of Pipe or Weld sub-cause is selected.	
4. Additional factors: (*select all that apply*):	
- Dent	
- Gouge	
- Pipe Bend	
- Arc Burn	
- Crack	
- Lack of Fusion	
- Lamination	
- Buckle	
- Wrinkle	
- Misalignment	
- Burnt Steel	
- Other:	
- If Other, Describe:	
5. Has one or more internal inspection tool collected data at the point of the Accident?	
5a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	
Most recent year run:	
- Ultrasonic	
Most recent year run:	
- Geometry	
Most recent year run:	
- Caliper	
Most recent year run:	
- Crack	
Most recent year run:	
- Hard Spot	
Most recent year run:	
- Combination Tool	
Most recent year run:	
- Transverse Field/Triaxial	
Most recent year run:	
- Other	
Most recent year run:	
Describe:	
6. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	
- If Yes:	
Most recent year tested:	
Test pressure (psig):	
7. Has one or more Direct Assessment been conducted on the pipeline segment?	
- If Yes, and an investigative dig was conducted at the point of the Accident -	
Most recent year conducted:	
- If Yes, but the point of the Accident was not identified as a dig site -	
Most recent year conducted:	
8. Has one or more non-destructive examination(s) been conducted at the point of the Accident since January 1, 2002?	
8a. If Yes, for each examination conducted since January 1, 2002, select type of non-destructive examination and indicate most recent year the examination was conducted: -	

- Radiography	
Most recent year conducted:	
- Guided Wave Ultrasonic	
Most recent year conducted:	
- Handheld Ultrasonic Tool	
Most recent year conducted:	
- Wet Magnetic Particle Test	
Most recent year conducted:	
- Dry Magnetic Particle Test	
Most recent year conducted:	
- Other	
Most recent year conducted:	
Describe:	
G6 – Equipment Failure - only one **sub-cause** can be selected from the shaded left-hand column	
Equipment Failure – Sub-Cause:	Other Equipment Failure
- If Malfunction of Control/Relief Equipment:	
1. Specify: *(select all that apply)* -	
- Control Valve	
- Instrumentation	
- SCADA	
- Communications	
- Block Valve	
- Check Valve	
- Relief Valve	
- Power Failure	
- Stopple/Control Fitting	
- ESD System Failure	
- Other	
- If Other – Describe:	
- If Pump or Pump-related Equipment:	
2. Specify:	
- If Other – Describe:	
- If Threaded Connection/Coupling Failure:	
3. Specify:	
- If Other – Describe:	
- If Non-threaded Connection Failure:	
4. Specify:	
- If Other – Describe:	
- If Other Equipment Failure:	
5. Describe:	Mixer Seal
Complete the following if any Equipment Failure sub-cause is selected.	
6. Additional factors that contributed to the equipment failure: *(select all that apply)*	
- Excessive vibration	
- Overpressurization	
- No support or loss of support	
- Manufacturing defect	
- Loss of electricity	
- Improper installation	
- Mismatched items (different manufacturer for tubing and tubing fittings)	
- Dissimilar metals	
- Breakdown of soft goods due to compatibility issues with transported commodity	
- Valve vault or valve can contributed to the release	
- Alarm/status failure	
- Misalignment	
- Thermal stress	
- Other	Yes
- If Other, Describe:	Improper belt tension
G7 - Incorrect Operation - only one **sub-cause** can be selected from the shaded left-hand column	
Incorrect Operation – Sub-Cause:	

- If Tank, Vessel, or Sump/Separator Allowed or Caused to Overfill or Overflow	
1. Specify:	
- If Other, Describe:	
- If Other Incorrect Operation	
2. Describe:	
Complete the following if any Incorrect Operation sub-cause is selected.	
3. Was this Accident related to *(select all that apply)*: -	
- Inadequate procedure	
- No procedure established	
- Failure to follow procedure	
- Other:	
- If Other, Describe:	
4. What category type was the activity that caused the Accident?	
5. Was the task(s) that led to the Accident identified as a covered task in your Operator Qualification Program?	
5a. If Yes, were the individuals performing the task(s) qualified for the task(s)?	

G8 - Other Accident Cause - only one **sub-cause** can be selected from the shaded left-hand column

Other Accident Cause – Sub-Cause:	
- If Miscellaneous:	
1. Describe:	
- If Unknown:	
2. Specify:	

PART H - NARRATIVE DESCRIPTION OF THE ACCIDENT

On November 14, 2017 at 7:35 AM CST, approximately 74 gallons of crude oil was discovered near one of the mixers on Tank 45 by two maintainers at the Superior Terminal while completing routine rounds. Superior Pipeline Maintenance personnel, along with a mechanic technician were dispatched to investigate the source of the crude oil and begin cleanup of the contaminated soil. It was discovered that the seal on the mixer was damaged, due to improper belt tension causing the release of crude oil. The mixer has been taken apart, the bearings have been sent to the manufacturer for a failure analysis, and will be repaired once all appropriate parts have been received and an outage scheduled. Four cubic yards of contaminated soil has been cleaned up and taken to an approved landfill.

PART I - PREPARER AND AUTHORIZED SIGNATURE

Preparer's Name	[redacted]
Preparer's Title	Compliance Analyst
Preparer's Telephone Number	[redacted]
Preparer's E-mail Address	[redacted]
Preparer's Facsimile Number	7[redacted]
Authorized Signer Name	[redacted]
Authorized Signer Title	Supervisor US Pipeline Compliance
Authorized Signer Telephone Number	[redacted]9
Authorized Signer Email	[redacted]
Date	12/13/2017