NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAR 09,2002

No. 20020083 -- 11553
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 21 W SUPERIOR ST
   e. Operator address DULUTH CLEARWATER MN 55802
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 355 / / 02 / / 22 / /2002/
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 47° 22' 40 Longitude: -95° 24' 44
   (If not available, see instructions for how to provide specific location)
   b. CLEARBROOK CLEARWATER
   City and County or Parish
   c. MN 56634
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   0909.10

4. Telephone report
   / 594783 / / 02 / / 22 / / 2002 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 120,000
(describe) REPLACEMENT OF METER	
Total Costs:	$ 120,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 50
Recovered: 50

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 4
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ● Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / 1992 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 150 *PSIG*
   b. MOP at time of accident: 720 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ Under pavement ○ In open ditch
   ○ Underground ○ Above ground
   ● Inside/under building ○ Under water
   ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 1
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ○ Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
O Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / / /

e. Did operator get prior notification of excavation activity?
O Yes; Date received: / ___ / mo. / _____ / day / ___ / yr. O No

Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: O Flags O Stakes O Paint
- ii. Permanent markings: O Yes O No
- iii. Marks were (check one) : O Accurate O Not Accurate
- iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. ● Incorrect Operation

a. Type ● Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ANALYSIS BY FMC ENERGY SYSTEMS INDICATED THAT DAMAGE TO THE METER BODY APPEARS TO HAVE BEEN CAUSED BY HYDRAULIC SHOCK, AND WAS EXTENUATED BY IMPROPER LENGTH (ENGAGEMENT) OF MOUNTING BOLTS THAT SECURED THE INNERMECH TO THE METER BODY. INVESTIGATION OF THIS INCIDENT IDENTIFIED THAT A SUDDEN SURGE OF FLOW TO THE METER (HYDRAULIC SHOCK), DURING A DELIVERY ROOM FROM TANKAGE, MAY HAVE BEEN CAUSED BY STARTING THE BOOSTER PUMPS AFTER THE VALVE WAS FULLY OPEN. REVISED DELIVERY PROCEDURES HAVE BEEN IMPLEMENTED THAT ENSURE BOOSTER PUMPS ARE STARTED WITH PARTIALLY OPEN VALVES, THUS PREVENTING THIS SITUATION FROM REOCURRING. IT REMAINS INCONCLUSIVE AS TO WHY 5" RATHER THAN 6" BOLTS WERE INSTALLED IN THE METER. SMITH METER HAS AGREED TO ASSUME THE COSTS FOR REPAIR OF THE INNEMECH BODY, SINCE THE SMITH METER REPAIR AND MAINTENANCE PARTS LISTS WERE UNCLEAR FOR THIS PARTICULAR METER.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAR 12,2002

No. 20020085 – 11554
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 21 W SUPERIOR STREET
   e. Operator address DULUTH ST LOUIS MN 55802
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 320 / / 02 / / 14 / /2002 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 47° 22' 40 Longitude: -94° 38' 15
   (If not available, see instructions for how to provide specific location)
   b. CASS LAKE CASS
   City and County or Parish
   c. MN 56633
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   0953.04

4. Telephone report
   / 594083 / / 02 / / 14 / / 2002 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 100
Value of operator property damage	$ 0
Other Costs	$ 10,000
(describe) CONTAMINATED SOIL REMOVAL	
Total Costs:	$ 10,100

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 50
Recovered: 45

CAUSES FOR SMALL SPILLS ONLY ***(5 gallons to under 5 barrels) :*** **(For large spills [5 barrels or greater] see Part H)**

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 4
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / _____ / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ● Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / 1971 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 200 *PSIG*
   b. MOP at time of accident: 619 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 30 / in.
2. Wall thickness .5 / in.
3. Specification API 5L SMYS / 35000 /
4. Seam type DSAW
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ Under pavement ○ In open ditch
   ○ Underground ○ Above ground
   ○ Inside/under building ○ Under water
   ○ Other _____

2. *Depth of cover:* 30 *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 512
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ○ Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party O Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic O Atmospheric
- O Stray Current O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. ● Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
O Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /

e. Did operator get prior notification of excavation activity?
O Yes; Date received: /___/ mo. /___/ day /___/ yr. O No

Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: O Flags O Stakes O Paint
- ii. Permanent markings: O Yes O No
- iii. Marks were (check one): O Accurate O Not Accurate
- iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

COMPANY MAINTENANCE CREWS WERE EXCAVATING A 30" PUMP STATION SUCTION LINE (LINE 4) AS PART OF THE TERRACE III EXPANSION PROJECT. DURING THIS EXCAVATION, A FAILURE OCCURRED IN A 3/4" PIPING NIPPLE THAT WAS CONNECTED TO THE SUCTION LINE VIA A SOCK-O-LET FITTING. APPROXIMATELY 50 BARRELS OF PRODUCT WAS RELEASED AND CONTAINED WITHIN AN 80'X50' BERMED AREA ON STATION PROPERTY. THE DAMAGED SECTION OF LINE WAS IMMEDIATELY ISOLATED AND REPAIRED. SUBSEQUENT INVESTIGATION OF THE INCIDENT REVEALED THAT MECHANICAL EXCAVATING EQUIPMENT MAY HAVE BEEN OPERATING IN CLOSER PROXIMITY TO THE STATION PIPING THAN ALLOWED BY COMPANY PROCEDURES. HOWEVER, IT IS UNCLEAR WHETHER THE 3/4" PIPE WAS DIRECTLY IMPACTED, OR IF SOIL STRESS RESULTING FROM GROUND FROST CAUSED THE FAILURE, AS THE FITTING IN QUESTION WAS NEVER RECOVERED. AS A PRECAUTIONARY MEASURE, COMPANY POLICY REGARDING EXCAVATION OF EXISTING LINES WAS REVIEWED WITH THE OPERATOR AND HIS IMMEDIATE SUPERVISOR AFTER THE INCIDENT. IN ADDITION, INCIDENT SAFETY BULLETINS WERE ISSUED COMPANY-WIDE TO REINFORCE COMPANY POLICY ON EXCAVATION.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date AUG 02,2002

No. 20020238 – 11552
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 21 W SUPERIOR ST
   e. Operator address DULUTH CLEARWATER MN 55802
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1213 / / 07 / / 04 / /2002 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 47° 16' 9" Longitude: -93° 38' 10"
   (If not available, see instructions for how to provide specific location)
   b. COHASSET ITASCA
   City and County or Parish
   c. MN 55721
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   MP 1002.7

4. Telephone report
   / 615614 / / 07 / / 04 / / 2002 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 244,800
Cost of emergency response phase	$ 1,109,600
Cost of environmental remediation	$ 840,000
Other Costs	$ 3,232,900
(describe) CONTRACTOR CLEAN UP	
Operator Losses:	
Value of product lost	$ 120,000
Value of operator property damage	$ 50,000
Other Costs	$ 0
(describe)	
Total Costs:	$ 5,597,300

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. **Estimated amount of commodity involved :**
   ● **Barrels**
   ○ **Gallons (check only if spill is less than one barrel)**
   Amounts :
   Spilled : 6,000
   Recovered: 2,574

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID4 _____
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☒ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **OPA**

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ● Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / **1967** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: **525** *PSIG*
   b. MOP at time of accident: **687** *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)* ○ Puncture, diameter *(inches)* _____
   ● Rupture: ○ Circumferential - Separation ● Longitudinal - Tear/Crack, length *(inches)* **6** Propagation Length, total, both sides *(feet)* **5**
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☒ Manual ☒ Automatic ☒ Remote Control ☐ Check Valve
   Downstream: ☒ Manual ☒ Automatic ☒ Remote Control ☐ Check Valve

c. Length of segment isolated **60,192** ft
d. Distance between valves **60,192** ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☒ High Resolution Magnetic Flux tool	Year run:	**1993**
☒ Low Resolution Magnetic Flux tool	Year run:	**1979**
☒ UT tool	Year run:	**1998**
☒ Geometry tool	Year run:	**2000**
☒ Caliper tool	Year run:	**2000**
☒ Crack tool	Year run:	**1996**
☐ Hard Spot tool	Year run:	
☐ Other tool	Year run:	

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / **34** / in.
2. Wall thickness **.31** / in.
3. Specification **API 5LX** SMYS / **52000** /
4. Seam type **DSAW**
5. valve type _____
6. *Manufactured by* _____ *in year* / **1967** /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ○ Above ground
   ● Underground ○ Under water
   ○ Inside/under building ○ Other _____

2. *Depth of cover:* **18** *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? **4** days **17** hours **0** minutes

c. Product ignited ● Yes ○ No d. Explosion ○ Yes ● No
e. ☒ **Evacuation** *(general public only)* / **28** / people
Reason for Evacuation:
● Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ **0** / hr. / **0** / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: **15,000**
c. Long term impact assessment performed: ● Yes ○ No
d. Anticipated remediation ● Yes ○ No
If Yes, Check all that apply: ☒ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water **6000** barrels
Ocean/Seawater ● No ○ Yes
Surface ○ No ● Yes
Groundwater ● No ○ Yes
Drinking water ● No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes ○ No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ○ Local operating personnel, procedures or equipment
   - ● Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ○ Other (specify) _____
3. Estimated leak duration days 0 hours 1

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- ○ Bare
- ○ Coated

b. Visual Examination
- ○ Localized Pitting
- ○ General Corrosion
- ○ Other _____

c. Cause of Corrosion
- ○ Galvanic ○ Atmospheric
- ○ Stray Current ○ Microbiological
- ○ Cathodic Protection Disrupted
- ○ Stress Corrosion Cracking
- ○ Selective Seam Corrosion
- ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
○ No ○ Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
○ No ○ Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group
      ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type:
      ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable
      ○ Landowner-not farming related ○ Farming ○ Raildroad
      ○ Other liquid or gas transmission pipeline-operator or their contractor
      ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ○ No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity?
      ○ Yes; Date received: / ___ / mo. / _____ / day / ___ / yr. ○ No
      Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: ○ Flags ○ Stakes ○ Paint
      ii. Permanent markings: ○ Yes ○ No
      iii. Marks were (check one) : ○ Accurate ○ Not Accurate
      iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe => ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt => ○ Pipe ○ Fabrication ○ Other _____

18. ○ Fillet => ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ● Pipe Seam => ○ LF ERW ● DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
○ Construction Defect => ○ Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
● Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ● Yes ○ No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 1991 / yr. / 9 / mo. / 10 / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 8 / hr.

g. Estimated test pressure at point of accident: 930 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ON JULY 4, 2002 AT APPROXIMATELY 00:12 MST, LINE 4 AT MP 1002.7 EXPERIENCED A FAILURE IN A REMOTE OPEN WETLAND AREA. THE AREA OF THE RELEASE WAS AT A LOCATION WEST OF THE CITY OF COHASSET, MN. APPROXIMATELY 6,000 BARRELS OF CRUDE OIL WAS RELASED AS A RESULT OF THE RUPTURE. IN AN EFFORT TO MINIMIZE THE IMPACT TO THE SURROUNDING ENVIRONMENT, A CONTROLLED BURN OF THE CRUDE OIL WAS EXECUTED IN COORDINATION WITH COMPANY, LOCAL AND STATE OFFICIALS. ON JULY 4, 2002 AT APPROXIMATELY 1445 MST IGNITION OF THE RELEASED CRUDE OIL TOOK PLACE. RESIDENTS FROM APPROXIMATELY 10 HOMES WERE EVACUATED FROM THE SURROUNDING AREA AS A PRECAUTIONARY MEASURE. THERE WERE NO INJURIES AS A RESULT OF THE RELEASE OR FROM THE CONTROLLED BURN. NO WATERWAYS WERE IMPACTED BY THE RELEASE. THE INCIDENT IS STILL BEING INVESTIGATED TO DETERMINE THE ACTUAL CAUSE OF THE FAILURE.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date NOV 07,2002

No. 20020386 – 11558
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 21 WEST SUPERIOR STREET
   e. Operator address DULUTH ST LOUIS MN 55802
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 435 / / 11 / / 04 / /2002 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 46° 55' 40" Longitude: -92° 55' 59"
   (If not available, see instructions for how to provide specific location)
   b. FLOODWOOD ST LOUIS
   City and County or Parish
   c. MN 55736
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   1044.37

4. Telephone report
   / 628094 / / 11 / / 04 / / 2002 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 150,000
(describe) LEAK ESTIMATE	
Operator Losses:	
Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 0
(describe)	
Total Costs:	$ 150,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 4
Recovered: 1

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
● **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

(715) 394-1500
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID _____
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ○ Yes ● No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ● Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / 1971 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 130 *PSIG*
   b. MOP at time of accident: 618 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ● Leak: ○ Pinhole ● Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve
   Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated 100 ft
d. Distance between valves 13,516 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☒ High Resolution Magnetic Flux tool	Year run:	1993
☒ Low Resolution Magnetic Flux tool	Year run:	1989
☒ UT tool	Year run:	2002
☒ Geometry tool	Year run:	2002
☒ Caliper tool	Year run:	2002
☒ Crack tool	Year run:	2002
☐ Hard Spot tool	Year run:	
☐ Other tool	Year run:	

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 34 / in.
2. Wall thickness .28 / in.
3. Specification API 5L X52 SMYS / 52000 /
4. Seam type FLASH WELD
5. valve type STOPPLE TEE
6. *Manufactured by* TDW *in year* / 1971 /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ○ Above ground
   ● Underground
   ○ Under water
   ○ Inside/under building
   ○ Other _____

2. *Depth of cover:* 36 *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 2 days 0 hours 0 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 1 / hr. / / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 15
   c. Long term impact assessment performed: ● Yes ○ No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party O Other (specify) _____
3. Estimated leak duration days_____ hours __12__

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: O Bare O Coated

b. Visual Examination: O Localized Pitting O General Corrosion O Other _____

c. Cause of Corrosion: O Galvanic O Atmospheric O Stray Current O Microbiological O Cathodic Protection Disrupted O Stress Corrosion Cracking O Selective Seam Corrosion O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? O No O Yes, Year Protection Started: /_____/

e. Was pipe previously damaged in the area of corrosion? O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group: O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable O Landowner-not farming related O Farming O Raildroad O Other liquid or gas transmission pipeline-operator or their contractor O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact /___/
   e. Did operator get prior notification of excavation activity? O Yes; Date received: /___/ mo. /_____/ day /____/ yr. O No
   Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one) : O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe => ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt => ○ Pipe ○ Fabrication ○ Other _____

18. ● Fillet => ○ Branch ● Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ○ Pipe Seam => ○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
● Construction Defect => ● Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
○ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 1992 / yr. / 6 / mo. / 4 / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 9 / hr.

g. Estimated test pressure at point of accident: 825 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

AT 04:35 MST, AN ENBRIDGE EMPLOYEE NOTICED CRUDE OIL IN AN EXCAVATION AND ON THE GROUND IN FLOODWOOD STATION. THE CONTROL CENTER WAS NOTIFIED, AND ALL LINES WERE IMMEDIATELY SHUT DOWN AND ISOLATED. CAUSE OF THE LEAK WAS A CRACKED FILLET WELD ON THE UPSTREAM END OF A STOPPLE TEE. ENVIRONMENTAL IMPACT IS MINIMAL, AS ALL OIL WAS CONTAINED WITHIN THE STATION. APPROXIMATELY 15 YARDS OF CONTAMINATED SOIL WAS EXCAVATED.

THE LEAKING TEE WAS BETWEEN A MAIN LINE BLOCK VALVE AND ANOTHER STOPPLE TEE. USING THE VALVE AND TEE FOR ISOLATION, THE LEAKING TEE WAS CUT OUT OF THE PIPELINE AND SENT TO A LABORATORY FOR ANALYSIS. THE INITIATING FEATURE WAS A WELD DEFECT WHICH GREW THROUGH OPERATING PRESSURE CYCLES, RESULTING IN THE GROWTH OF A FATIGUE CRACK THROUGH THE FILLET WELD.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date FEB 24,2003

No. 20030083 -- 11564
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 21 W SUPERIOR ST
   e. Operator address DULUTH CLEARWATER MN 55802-2067
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 845 / / 01 / / 24 / /2003 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 46° 41' 30" Longitude: -92° 03' 35"
   (If not available, see instructions for how to provide specific location)
   b. SUPERIOR DOUGLAS
   City and County or Parish
   c. WI 54880
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   1096.95

4. Telephone report
   / 634984 / / 01 / / 25 / / 2003 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 75,000
Cost of emergency response phase	$ 750,000
Cost of environmental remediation	$ 750,000
Other Costs	$ 25,000
(describe) ICE REMOVAL FROM THE NEMADJI RIVER	

Operator Losses:

Value of product lost	$ 3,000
Value of operator property damage	$ 750,000
Other Costs	$ 500,000
(describe) TANK FEEDER LINE REPAIR AND HYDRO TESTING	
Total Costs:	$ 2,853,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 4,500
Recovered: 4,450

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 4
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **NEMAJI RIVER**

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ● Other Specify: **END CAP OF DELIVERY LINE FAILED**
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ● Girth Weld
   ○ Other *(specify)* _____

Year the component that failed was installed: / **1950** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: **200** *PSIG*
   b. MOP at time of accident: **275** *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / **24** / in.
2. Wall thickness **.34** / in.
3. Specification **API 5LX** SMYS / _____ /
4. Seam type **OTHER**
5. valve type _____
6. *Manufactured by* **UNKNOWN** *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ○ Above ground
   ● Underground ○ Under water
   ○ Inside/under building ○ Other _____

2. *Depth of cover:* **12** *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? **0** days **15** hours **52** minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: **12,000**
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water **0** barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ● Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party O Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: O Bare O Coated

b. Visual Examination: O Localized Pitting O General Corrosion O Other _____

c. Cause of Corrosion: O Galvanic O Atmospheric O Stray Current O Microbiological O Cathodic Protection Disrupted O Stress Corrosion Cracking O Selective Seam Corrosion O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion? O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group: O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable O Landowner-not farming related O Farming O Raildroad O Other liquid or gas transmission pipeline-operator or their contractor O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity? O Yes; Date received: / ___ / mo. / _____ / day / ___ / yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one): O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. ● Butt => O Pipe ● Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
● Construction Defect => ● Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes ● No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g ● No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ON JANUARY 24, 2003, AN INCIDENT OCCURRED AT OUR SUPERIOR, WISCONSIN TERMINAL FACILITIES DURING A SWING FROM TANK 19 TO TANK 23 OFF LINE 4. WHILE OUR INVESTIGATION IS ONGOING, INITIAL INDICATIONS ARE THAT AN END CAP OFF OF A 24" DELIVERY LINE FAILED DURING A RELATIVELY MINOR PRESSURE SURGE CAUSED BY AN OPERATOR MOMENTARILY SWINGING AGAINST A CLOSED TERMINAL VALVE DURING A DELIVERY. THIS RESULTED IN THE RELEASE OF APPROXIMATELY 4500 BARRELS CRUDE OIL, A PORTION OF WHICH MIGRATED OFF SITE TO THE NEARBY FROZEN NEMADJI RIVER. IT IS ESTIMATED THAT APPROXIMATELY 450 BARRELS OF OIL REACHED THE RIVER; HOWEVER, INFORMATION GATHERED FROM NUMEROUS MONITORING WELLS INDICATED THAT THE PRODUCT WAS CONTAINED ABOVE THE ICE AND THAT IT DID NOT REACH THE ACTUAL WATERS OF THE RIVER. CLEANUP OF THE ICE HAS BEEN COMPLETED, AND CLEANUP IS STILL IN PROGRESS FOR THE REMAINDER OF THE AFFECTED FACILITIES.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAY 14,2003

No. 20030187 – 11566
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident

/ 1216 / / 04 / / 14 / /2003 /
hr. *month* *day* *year*

3. Location of accident
(If offshore, do not complete a through d See Part C.1)

a. Latitude: 47° 47' 50" Longitude: -95° 43' 10"
(If not available, see instructions for how to provide specific location)

b. TRAIL POLK
City and County or Parish

c. MN 56684
State and Zip Code

d. Mile post/valve station ● or Survey Station no. ○
(whichever gives more accurate location)
892.95

4. Telephone report

/ 642177 / / 04 / / 14 / / 2003 /
NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 500,000
Cost of environmental remediation	$ 200,000
Other Costs	$ 300,000
(describe) GIRTH WELD INVESTIGATION	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 0
(describe)	
Total Costs:	$ 1,000,000

6. Commodity Spilled ● Yes ○ No
(If Yes, complete Parts a through c where applicable)

a. Name of commodity spilled CRUDE OIL

b. Classification of commodity spilled:
- ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
- ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
- ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
- ● Crude oil

c. Estimated amount of commodity involved :
- ● **Barrels**
- ○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 125
Recovered: 75

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID3 _____
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(compld if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☐ Operator's Property
   ☒ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **OPA** _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on

○ Body of Pipe	○ Pipe Seam	○ Scraper Trap
○ Pump	○ Sump	○ Joint
○ Component	○ Valve	○ Metering Facility
○ Repair Sleeve	○ Welded Fitting	○ Bolted Fitting
● Girth Weld		

○ Other *(specify)* _____

Year the component that failed was installed: / _____ /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: **225** *PSIG*
   b. MOP at time of accident: **619** *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ● Leak: ● Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve

c. Length of segment isolated **32** ft
d. Distance between valves **32** ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☒ High Resolution Magnetic Flux tool	Year run:	**1998**
☒ Low Resolution Magnetic Flux tool	Year run:	**1989**
☒ UT tool	Year run:	**2002**
☒ Geometry tool	Year run:	**2002**
☒ Caliper tool	Year run:	**2002**
☒ Crack tool	Year run:	**2001**
☐ Hard Spot tool	Year run:	
☐ Other tool	Year run:	

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / **34** / in.
2. Wall thickness **.28** / in.
3. Specification **X52** SMYS / **52000** /
4. Seam type _____
5. valve type _____
6. *Manufactured by* **U.S. STEEL** *in year* / **1967** /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ○ Above ground
   ● Underground
   ○ Under water
   ○ Inside/under building
   ○ Other _____

2. *Depth of cover:* **42** *inches*

PART F - CONSEQUENCES

1. **Consequences** *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ○ No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ○ No d. Explosion ○ Yes ○ No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: **2,000**
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☒ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - ● A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 12

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: /____/

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
- O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
- O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
- O Landowner-not farming related O Farming O Raildroad
- O Other liquid or gas transmission pipeline-operator or their contractor
- O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact /___/

e. Did operator get prior notification of excavation activity?
O Yes; Date received: /___/ mo. /___/ day /___/ yr. O No

Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: O Flags O Stakes O Paint
- ii. Permanent markings: O Yes O No
- iii. Marks were (check one): O Accurate O Not Accurate
- iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. ● Butt => ● Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
● Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g O No

d. Date of test: / 1991 / yr. / 9 / mo. / 10 / day

e. Test medium: ● Water O Inert Gas O Other _____

f. Time held at test pressure: / 10 / hr.

g. Estimated test pressure at point of accident: 225 *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

CANADIAN PACIFIC RAILROAD EMPLOYEES WERE WORKING IN THE AREA OF MP 894 WHEN THEY SPOTTED A CONTRACT INSPECTOR WORKING WITH A SLEEVING CREW. THEY REPORTED THAT THEY SAW CRUDE OIL ON THE GROUND AND TOOK THE INSPECTOR TO THE LOCATION. THE INSPECTOR SAW THE SPILL AND IMMEDIATELY CONTACTED THE PROJECT COORDINATOR WHO, IN TURN, CONTACTED THE CONTROL CENTER. THE CONTROL CENTER OPERATORS IMMEDIATELY SHUT DOWN ALL LINES IN THE AREA AND BEGAIN EMERGENCY NOTIFICATIONS.

THE OIL WAS CONTAINED IN A MARSHY AREA, AND BERMS WERE CONSTRUCTED TO PREVENT EXFILTRATION OFF-SITE. FREE PRODUCT WAS REMOVED WITH VACUUM TRUCKS, AND CONTAMINATED SOIL WAS HAULED TO A STORAGE FACILITY FOR FUTURE LANDFARMING AND LANDFILLING.

A PLIDCO SPLIT+SLEEVE WAS INSTALLED INITIALLY AS A TEMPORARY REPAIR UNTIL A CUT-OUT COULD BE PERFORMED. THE CUT-OUT WAS COMPLETED ON APRIL 22, 2003. IN ADDITION TO THE STOPPLE TEES, TWO PLIDCO WELD+END COUPLINGS WERE USED TO TIE IN THE NEW PIPE.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JUN 06,2003

No. 20030218 – 11512
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1530 / / 05 / / 08 / /2003 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 41* 30' 56" Longitude: -87* 26' 55"
   (If not available, see instructions for how to provide specific location)
   b. GRIFFITH LAKE
   City and County or Parish
   c. IN 46319
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   465.38

4. Telephone report
   / 644441 / / 05 / / 08 / / 2003 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 10,000
(describe) SOIL DISPOSAL	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 0
(describe)	
Total Costs:	$ 10,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 700
Recovered: 695

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

THERESA PICTON
(type or print) Preparer's Name and Title

(715) 394-1468
Area Code and Telephone Number

THERESA.PICTON@ENBRIDGE.COM
Preparer's E-mail Address

(832) 325-5477
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 6
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ● Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ● Other *(specify)* **TANK DRAIN LINE**

   Year the component that failed was installed: / **1989** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: **15** *PSIG*
   b. MOP at time of accident: **15** *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ● Above ground
   ○ Underground ○ Under water
   ○ Inside/under building ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 0 / hr. / 0 / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: **200**
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ○ Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days _____ hours 1

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group
      O General Public O Government O Excavator other than Operator/subcontractor
   b. Type:
      O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      O Landowner-not farming related O Farming O Raildroad
      O Other liquid or gas transmission pipeline-operator or their contractor
      O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity?
      O Yes; Date received: /___/ mo. /_____/ day /___/ yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one): O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. ● Miscellaneous, *describe:* **TANK ROOF DRAIN FAILURE**

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

A TANK ROOF DRAIN LINE FAILURE OCCURRED WHILE REFLOATING THE ROOF OF TANK 72. THE ENTIRE AMOUNT RELEASED WAS CONTAINED IN THE TANK DIKE AREA. FREE STANDING OIL WAS PICKED UP WITH THE TANK TRUCK UNLOADING PUMP AND REINJECTED. CONTAMINATED SOIL HAS BEEN REMOVED FROM THE SITE, AND NO FURTHER SITE REMEDIATION IS ANTICIPATED.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JUN 19,2003

No. 20030233 – 11569
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1339 / / 05 / / 26 / /2003 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 47° 41' 20" Longitude: -95° 24' 44"
   (If not available, see instructions for how to provide specific location)
   b. CLEARBROOK CLEARWATER
   City and County or Parish
   c. MN 56634
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   909.19

4. Telephone report
   / 646085 / / 05 / / 27 / / 2003 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 10,000
Cost of environmental remediation	$ 0
Other Costs	$ 10,000
(describe) CLEANUP	
Operator Losses:	
Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 0
(describe)	
Total Costs:	$ 20,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
   ● Barrels
   ○ Gallons (check only if spill is less than one barrel)
   Amounts :
   Spilled : 100
   Recovered: 100

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature

(type or print) Name and Title

Date

Area Cod and Telephone Number

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. ● Joint => ● Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:

O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
● Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g O No

d. Date of test: / 2002 / yr. / 9 / mo. / 5 / day

e. Test medium: ● Water O Inert Gas O Other _____

f. Time held at test pressure: / 8 / hr.

g. Estimated test pressure at point of accident: 677 *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

A GASKET ON THE FLANGE CONNECTING THE UNIT #3 PUMP TO THE DISCHARGE ELBOW BLEW OUT, RELEASING APPROXIMATELY 100 BARRELS OF CRUDE OIL INTO THE LINE 4 PUMPROOM. THE RELEASED CRUDE WAS CONTAINED WITHIN LINE 4 PUMPROOM BUILDING. LINE 4 REMAINED DOWN UNTIL APPROXIMATELY 0400 MST, 0/27/03. THE DAMAGED GASKET WAS REPLACED AND UNIT #3 WAS RELEASED TO ACTIVE SERVICE.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAR 09,2002

No. 20020083 – 11553
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 21 W SUPERIOR ST
   e. Operator address DULUTH CLEARWATER MN 55802
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 355 / / 02 / / 22 / /2002 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 47° 22' 40 Longitude: -95° 24' 44
   (If not available, see instructions for how to provide specific location)
   b. CLEARBROOK CLEARWATER
   City and County or Parish
   c. MN 56634
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   0909.10

4. Telephone report
   / 594783 / / 02 / / 22 / / 2002 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 120,000
(describe) REPLACEMENT OF METER	
Total Costs:	$ 120,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 50
Recovered: 50

CAUSES FOR SMALL SPILLS ONLY ***(5 gallons to under 5 barrels) :*** **(For large spills [5 barrels or greater] see Part H)**

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 4
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ● Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / 1992 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 150 *PSIG*
   b. MOP at time of accident: 720 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ○ Above ground
   ○ Underground
   ○ Under water
   ● Inside/under building
   ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 1
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ○ Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group
      O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      O Landowner-not farming related O Farming O Raildroad
      O Other liquid or gas transmission pipeline-operator or their contractor
      O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity?
      O Yes; Date received: / ___ / mo. / _____ / day / ___ / yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one) : O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. ● Incorrect Operation

a. Type ● Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ANALYSIS BY FMC ENERGY SYSTEMS INDICATED THAT DAMAGE TO THE METER BODY APPEARS TO HAVE BEEN CAUSED BY HYDRAULIC SHOCK, AND WAS EXTENUATED BY IMPROPER LENGTH (ENGAGEMENT) OF MOUNTING BOLTS THAT SECURED THE INNERMECH TO THE METER BODY. INVESTIGATION OF THIS INCIDENT IDENTIFIED THAT A SUDDEN SURGE OF FLOW TO THE METER (HYDRAULIC SHOCK), DURING A DELIVERY ROOM FROM TANKAGE, MAY HAVE BEEN CAUSED BY STARTING THE BOOSTER PUMPS AFTER THE VALVE WAS FULLY OPEN. REVISED DELIVERY PROCEDURES HAVE BEEN IMPLEMENTED THAT ENSURE BOOSTER PUMPS ARE STARTED WITH PARTIALLY OPEN VALVES, THUS PREVENTING THIS SITUATION FROM REOCURRING. IT REMAINS INCONCLUSIVE AS TO WHY 5" RATHER THAN 6" BOLTS WERE INSTALLED IN THE METER. SMITH METER HAS AGREED TO ASSUME THE COSTS FOR REPAIR OF THE INNEMECH BODY, SINCE THE SMITH METER REPAIR AND MAINTENANCE PARTS LISTS WERE UNCLEAR FOR THIS PARTICULAR METER.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date NOV 13,2003

No. 20030413 – 11527
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 348 / / 10 / / 13 / /2003 /
   hr. *month* *day* *year*

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 43* 37' 42" Longitude: -83* 59' 14"
   (If not available, see instructions for how to provide specific location)
   b. BAY CITY BAY
   City and County or Parish
   c. MI 48706
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   1636.70

4. Telephone report
   / 702318 / / 10 / / 13 / / 2003 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 120,000
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 0
(describe)	
Total Costs:	$ 120,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 500
Recovered: 430

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

THERESA PICTON
(type or print) Preparer's Name and Title

(715) 394-1468
Area Code and Telephone Number

THERESA.PICTON@ENBRIDGE.COM
Preparer's E-mail Address

(832) 325-5477
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 5
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ● Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

Year the component that failed was installed: / 1990 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 596 *PSIG*
   b. MOP at time of accident: 603 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ● Above ground
   ○ Underground
   ○ Under water
   ○ Inside/under building
   ○ Other _____
2. *Depth of cover:* 37 *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 0 days 10 hours 0 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official
f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 800
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ● Yes ○ No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

THE SOURCE OF THE RELEASE WAS FROM A BELOW GRADE VAULT OR PIT ON THE STATION DISCHARGE PIPING. THE CAUSE WAS DUE TO THE AGING AND RESULTANT WEAKENING OF A 2000 PSI RATED 1/2-INCH DIAMETER HYDRAULIC HOSE USED FOR CALIBRATION, WHICH WAS ATTACHED TO A FLOW METER LOCATED IN AN UNDERGROUND VAULT OR PIT. THE PIT CONTAINED WATER AND, AS CRUDE OIL WAS RELEASED, IT FLOATED TO THE TOP, FILLING AND OVERFLOWING THE VAULT, AND FURTHER TRAVELING SEVERAL HUNDRED FEET TO THE CONTAINMENT POND. THE RELEASE WAS CONTAINED ON STATION PROPERTY, BETWEEN THE CONTAINMENT POND AND THE SOURCE OF THE RELEASE. THE FAULTY HOSE WAS REMOVED AND REPLACED.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAR 16,2004

No. 20040063 – 11586
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1032 / / 02 / / 19 / /2004 /
   hr. *month* *day* *year*

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 47° 15' 10" Longitude: -93° 33' 04"
   (If not available, see instructions for how to provide specific location)
   b. GRAND RAPIDS ITASCA
   City and County or Parish
   c. MN 55744
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   1007.33

4. Telephone report
   / 714880 / / 03 / / 02 / / 2004 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 27,500
Cost of environmental remediation	$ 27,500
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 34,790
Value of operator property damage	$ 0
Other Costs	$ 1,000,000
(describe) ENVIRONMENTAL REMEDIATION	
Total Costs:	$ 1,089,790

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. **Estimated amount of commodity involved :**
   ● **Barrels**
   ○ **Gallons (check only if spill is less than one barrel)**
   Amounts :
   Spilled : 1,003
   Recovered: 9

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

(715) 394-1500
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 2
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☐ Operator's Property
   ☒ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **DW & OPA**

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on

● Body of Pipe	○ Pipe Seam	○ Scraper Trap
○ Pump	○ Sump	○ Joint
○ Component	○ Valve	○ Metering Facility
○ Repair Sleeve	○ Welded Fitting	○ Bolted Fitting
○ Girth Weld		

   ○ Other *(specify)* _____

   Year the component that failed was installed: / 1957 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: _____ *PSIG*
   b. MOP at time of accident: 809 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ● Leak: ● Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve

c. Length of segment isolated 15 ft
d. Distance between valves 15 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☒	High Resolution Magnetic Flux tool	Year run: 2003
☐	Low Resolution Magnetic Flux tool	Year run:
☐	UT tool	Year run:
☐	Geometry tool	Year run:
☒	Caliper tool	Year run: 2003
☒	Crack tool	Year run: 2002
☐	Hard Spot tool	Year run:
☐	Other tool	Year run:

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 26 / in.
2. Wall thickness .28 / in.
3. Specification API5LX SMYS / 52000 /
4. Seam type ERW
5. valve type _____
6. *Manufactured by* IPSCO *in year* / 1956 /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ○ Above ground
   ● Underground
   ○ Under water
   ○ Inside/under building
   ○ Other _____

2. *Depth of cover:* 36 *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ○ No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 800
   c. Long term impact assessment performed: ● Yes ○ No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☒ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water 994 barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ● Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes ○ No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ○ Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: ○ Bare ○ Coated

b. Visual Examination: ○ Localized Pitting ○ General Corrosion ○ Other _____

c. Cause of Corrosion: ○ Galvanic ○ Atmospheric ○ Stray Current ○ Microbiological ○ Cathodic Protection Disrupted ○ Stress Corrosion Cracking ○ Selective Seam Corrosion ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? ○ No ○ Yes, Year Protection Started: /____/

e. Was pipe previously damaged in the area of corrosion? ○ No ○ Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. ● Earth Movement => ○ Earthquake ● Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group: ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type: ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable ○ Landowner-not farming related ○ Farming ○ Raildroad ○ Other liquid or gas transmission pipeline-operator or their contractor ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ○ No If Yes, Date of last contact /___/
   e. Did operator get prior notification of excavation activity?
      ○ Yes; Date received: /___/ mo. /___/ day /___/ yr. ○ No
      Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: ○ Flags ○ Stakes ○ Paint
      ii. Permanent markings: ○ Yes ○ No
      iii. Marks were (check one): ○ Accurate ○ Not Accurate
      iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

A CONTRACT CREW UNDER DIRECTION OF AN ENBRIDGE PROJECT COORDINATOR WAS BEGINNING TO DIG AN INDICATION (DENT WITH METAL LOSS) AT MP 1007.33 NEAR THE TOWN OF GRAND RAPIDS, MN. ALTHOUGH NO OIL WAS SEEN ON THE TOP OF THE GROUND,FRESHLY CONTAMINATED SOIL WAS ENCOUNTERED ONCE DIGGING COMMENCED. THE SOURCE OF THE LEAK WAS DETERMINED TO BE A SLOW, WEEPING CRACK ON OUR 26" LINE 2 PIPE. UPON EXCAVATION, A ROCK WAS REMOVED FROM THE DENT AND WAS DETERMINED TO BE THE ROOT CAUSE OF THE LEAK. A ONE-FOT TIGHT-FITTING SLEEVE, PLACED OVER A RUBBER PATCH, WAS WELDED OVER THE DENT. DISOCVERY, EVALUATION AND REPAIR OF CRACK WAS ALL COMPLETED WITHIN 12 HOURS.
UPDATE 8/11/2004 - AN ENVIRONMENTAL ASSESSMENT HAS DETERMINED THAT THE GROUNDWATER DIRECTLY BELOW THE AREA OF THE LEAK WAS AFFECTED. ADDITIONAL MONITORING WELLS MUST BE INSTALLED TO DETERMINE THE EXTENT OF THE GROUNDWATER CONTAMINATION. ONCE THE WELLS ARE INSTALLED AND MONITORED, A BETTER ESTIMATE OF VOLUME AND COST OF ENVIRONMENTAL REMEDIATION CAN BE ESTABLISHED.

FOLLOWING THE INSTALLATION AND DEVELOPMENT OF A MONITORING WELL, APPROXIMATELY 1 FOOT OF OIL WAS OBSERVED IN EARLY AUGUST 2004. THE MINNESOTA POLLUTION CONTROL AGENCY WAS NOTIFIED OF THIS FINDING AT THAT TIME. ADDITIONAL INVESTIGATION WAS NECESSARY TO DEFINE THE OIL LOST AND THE ASSOCIATED IMPACTS TO GROUNDWATER, WHICH TOOK SOME TIME DUE TO DIFFICULT SITE ACCESS, REQUIRED PERMITS, CHANGE IN LAND OWNERSHIP AND DIFFICULT DRILLING CONDITIONS (LARGE BOULDERS). DRILLING BEGAN IN EARLY SEPTEMBER AND CONTINUED THROUGH NOVEMBER UNTIL SNOWFALL RESTRICTED ACCESS. ALL MONITORING WELLS WERE SUBSEQUENTLY DEVELOPED AND SURVEYED. THE INITIAL MONITORING EVENT WAS COMPLETED IN MID-DECEMBER AND A CONFIRMATORY SAMPLING EVENT WAS CONDUCTED IN LATE JANUARY TO DETERMINE WHETHER THE INITIAL OBSERVATIONS WERE VALID AND THE OIL THICKNESSES OBSERVED IN THE WELLS HAD STABILIZED. FOLLOWING THE COLLECTION OF THE DATA FROM THE LATE JANUARY SAMPLING EVENT, THE OIL LOST VOLUME WAS SUBSEQUENTLY CALCULATED BASED ON THE OBSERVED OIL THICKNESSES IN THE MONITORING WELLS AND REPORTED TO THE APPLICABLE AGENCIES INVOLVED.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date APR 29,2004

No. 20040100 – 11589
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident

/ 1500 / hr. / 04 / month / 02 / day / 2004 / year

3. Location of accident
(If offshore, do not complete a through d See Part C.1)

a. Latitude: 46° 41' 12" Longitude: -92° 03' 12"
(If not available, see instructions for how to provide specific location)

b. SUPERIOR DOUGLAS
City and County or Parish

c. WI 54880
State and Zip Code

d. Mile post/valve station ● or Survey Station no. ○
(whichever gives more accurate location)
1096.95

4. Telephone report

/ 717713 / NRC Report Number / 04 / month / 02 / day / 2004 / year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 10,000
(describe) REPAIR & CLEANUP	
Total Costs:	$ 10,000

6. Commodity Spilled ● Yes ○ No
(If Yes, complete Parts a through c where applicable)

a. Name of commodity spilled CRUDE OIL

b. Classification of commodity spilled:
- ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
- ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
- ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
- ● Crude oil

c. Estimated amount of commodity involved :
- ● **Barrels**
- ○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 2
Recovered: 2

CAUSES FOR SMALL SPILLS ONLY ***(5 gallons to under 5 barrels) :*** **(For large spills [5 barrels or greater] see Part H)**

- ○ **Corrosion**
- ○ **Natural Forces**
- ○ **Excavation Damage**
- ○ **Other Ouside Force Damage**
- ● **Materal and/or Weld Failures**
- ○ **Equipment**
- ○ **Incorrect Operation**
- ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

(715) 394-1500
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 2
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **OPA**

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on

○ Body of Pipe	○ Pipe Seam	○ Scraper Trap
○ Pump	○ Sump	○ Joint
● Component	○ Valve	○ Metering Facility
○ Repair Sleeve	○ Welded Fitting	○ Bolted Fitting
○ Girth Weld		

   ○ Other *(specify)* _____

   Year the component that failed was installed: / 2004 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: _____ *PSIG*
   b. MOP at time of accident: 275 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ● Leak: ○ Pinhole ● Connection Failure *(complete sec. H5)* ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation ○ Longitudinal - Tear/Crack, length *(inches)* _____ Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ● No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ● Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☐ High Resolution Magnetic Flux tool	Year run: _____
☐ Low Resolution Magnetic Flux tool	Year run: _____
☐ UT tool	Year run: _____
☐ Geometry tool	Year run: _____
☐ Caliper tool	Year run: _____
☐ Crack tool	Year run: _____
☐ Hard Spot tool	Year run: _____
☐ Other tool	Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 26 / in.
2. Wall thickness .38 / in.
3. Specification 5L SMYS / 52000 /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / /

PART E - ENVIRONMENT

1. *Area of accident*
   ● In open ditch
   ○ Under pavement
   ○ Above ground
   ○ Underground
   ○ Under water
   ○ Inside/under building
   ○ Other _____
2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

   b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
   If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ● Yes ○ No d. Explosion ● Yes ○ No
e. ☐ **Evacuation** *(general public only)* / / people
   Reason for Evacuation:
   ○ Precautionary by company
   ○ Evacuation required or initiated by public official
f. Elapsed time until area was made safe:
   / / hr. / 10 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 20
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
   Amount in water _____ barrels
   Ocean/Seawater ○ No ○ Yes
   Surface ○ No ○ Yes
   Groundwater ○ No ○ Yes
   Drinking water ○ No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
- O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
- O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
- O Landowner-not farming related O Farming O Raildroad
- O Other liquid or gas transmission pipeline-operator or their contractor
- O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /

e. Did operator get prior notification of excavation activity?
O Yes; Date received: / ___ / mo. / ___ / day / ___ / yr. O No

Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: O Flags O Stakes O Paint
- ii. Permanent markings: O Yes O No
- iii. Marks were (check one) : O Accurate O Not Accurate
- iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

DURING HYDROTEST PREPARATORY WORK ON 26" PIPING WITHIN THE SUPERIOR TERMINAL, A VAPOR PLUG APPARENTLY FAILED DURING WELDING OPERATIONS, RESULTING IN A FLASH, SIGNIFICANT SMOKE, AND THE RELEASE OF ABOUT 2 BARRELS OF CRUDE OIL INTO THE EXCAVATION. THERE WERE NO INJURIES. THE SECTION OF PIPELINE BEING WORKED ON WAS ISOLATED FROM ALL LIVE SYSTEMS AND HAD BEEN DRAINED UP. OPERATIONS AT THE TERMINAL WERE NOT IMPACTED. THE EXACT CAUSE OF THE INCIDENT REMAINS UNDER INVESTIGATION. A SMALL AMOUNT OF CRUDE OIL DRAINED INTO THE TERMINAL DITCH ADJACENT TO THE EXCAVATION, BUT THIS WAS CONTAINED WITH BERMING AND BOOM TO ABOUT FIFTY FEET OF DITCH. CLEAN UP SHOULD BE RELATIVELY EASY AND THE OVERALL RELEASE IMPACT IS MINOR. ALTHOUGH, UNDER THE 5 BARREL DOT REPORTING THRESHOLD FOR LEAKS OCCURRING DURING MAINTENANCE ACTIVITIES, THE FLASH DOES TRIGGER DOT AND NRC REPORTING. THIS INCIDENT WILL BE THOROUGHLY INVESTIGATED AS TO CAUSE AND LEARNINGS COMMUNICATED AS SOON AS POSSIBLE VIA CLOSE CALL BULLETIN.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JUN 08,2004

No. 20040139 – 11594
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 645 / / 05 / / 13 / /2004 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 46° 41' 20" Longitude: -92° 03' 38"
   (If not available, see instructions for how to provide specific location)
   b. SUPERIOR DOUGLAS
   City and County or Parish
   c. WI 54880
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   1096.95

4. Telephone report
   / 721621 / / 05 / / 13 / / 2004 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 100
Value of operator property damage	$ 0
Other Costs	$ 81,664
(describe) OIL COLLECTION, SOIL REMOVAL AND REPAIR WORK	
Total Costs:	$ 81,764

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 40
Recovered: 38

CAUSES FOR SMALL SPILLS ONLY ***(5 gallons to under 5 barrels) :*** **(For large spills [5 barrels or greater] see Part H)**

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

(715) 394-1500
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **CROSSOVER PIPING**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / _____ / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **OTHER POPULATION AREA**

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ● Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

Year the component that failed was installed: / 1968 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 250 *PSIG*
   b. MOP at time of accident: 960 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 16 / in.
2. Wall thickness .38 / in.
3. Specification 5L SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / 1968 /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ○ Above ground
   ● Underground ○ Under water
   ○ Inside/under building ○ Other _____

2. *Depth of cover:* 30 *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ _____ / hr. / 5 / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 90
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water 2 barrels
Ocean/Seawater ● No ○ Yes
Surface ○ No ● Yes
Groundwater ● No ○ Yes
Drinking water ● No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days ____ hours 1

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion

2. ● Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- ● Coated

b. Visual Examination
- ● Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- ● Other **GENERAL INTERNAL CORROSION**

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No ● Yes, Year Protection Started: / **1968** /

e. Was pipe previously damaged in the area of corrosion?
● No O Yes => Estimated time prior to accident: / / years / / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group
      O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      O Landowner-not farming related O Farming O Raildroad
      O Other liquid or gas transmission pipeline-operator or their contractor
      O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / /
   e. Did operator get prior notification of excavation activity?
      O Yes; Date received: / / mo. / / day / / yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one) : O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

PREPARATIONS WERE BEING MADE TO HYDROTEST THE LINE 3 TO LINE 5 CROSSOVER PIPING WITHIN SUPERIOR TERMINAL. THERE WAS A NEED TO WELD FITTINGS ON THIS 16" CROSSOVER LINE (THIS LINE IS RARELY USED IN OPERATIONS). TO ENSURE THE LINE WAS FULL AND ENSURE SAFE WELDING, IT WAS PRESSURIZED BY OPENING THE VALVE TO LINE 3 PRESSURE. THE CROSSOVER PIPE BEGAN LEAKING AND SPILLED APPROXIMATELY 20 BARRELS INTO NEARBY DITCHING. VALVES WERE CLOSED, THE PIPELINE ISOLATED AND THE OIL MIGRATION WAS STOPPED. THE AFFECTED SECTION OF PIPE WAS REMOVED AND REPLACED WITH PRE-TESTED PIPE.

THIS LEAK SHOULD NOT HAVE ANY IMPACT ON THE MAINLINE OR NORMAL SUPERIOR TERMINAL OPERATIONS. CLEAN-UP WILL REQUIRE EXCAVATION OF OILY SOIL FROM THE SURROUNDING AREA AND DITCHES. NO SIGNIFICANT ENVIRONMENTAL IMPACT IS EXPECTED; HOWEVER, THERE WILL BE A FAIR AMOUNT OF EXCAVATION AND CLEAN UP TO DO. COSTS ARE ESTIMATED AT $100,000.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JUN 15,2004

No. 20040150 -- 11595
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 450 / / 05 / / 20 / /2004 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 47° 41' 28" Longitude: -92° 24' 52"
   (If not available, see instructions for how to provide specific location)
   b. CLEARBROOK CLEARWATER
   City and County or Parish
   c. MN 56634
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   909.19

4. Telephone report
   / 725028 / / 06 / / 15 / / 2004 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 100,000
(describe) SOIL REMOVAL, TANK CLEANING, AND REPAIRS	
Total Costs:	$ 100,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
○ Barrels
● Gallons (check only if spill is less than one barrel)

Amounts :
Spilled : 21
Recovered: 20

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
● Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

(715) 394-1500
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **TANK 58**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **OPA**

3. Part of system involved in accident
   ● Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ● Other *(specify)* **TANK**

Year the component that failed was installed: / **1960** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: **10** *PSIG*
   b. MOP at time of accident: **20** *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification **5L** SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ● Above ground
   ○ Underground
   ○ Under water
   ○ Inside/under building
   ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ ____ / hr. / 5 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: **10**
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water **0** barrels
Ocean/Seawater ● No ○ Yes
Surface ○ No ● Yes
Groundwater ● No ○ Yes
Drinking water ● No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days _____ hours 1

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group
      O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      O Landowner-not farming related O Farming O Raildroad
      O Other liquid or gas transmission pipeline-operator or their contractor
      O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact /___/
   e. Did operator get prior notification of excavation activity?
      O Yes; Date received: /___/ mo. /_____/ day /___/ yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one): O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe => ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt => ○ Pipe ○ Fabrication ○ Other _____

18. ● Fillet => ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ● Other TANK BOTTOM

19. ○ Pipe Seam => ○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
● Construction Defect => ● Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
○ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 1960 / yr. / / mo. / / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 24 / hr.

g. Estimated test pressure at point of accident: 10 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / / alcohol test / /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

AT APPROXIMATELY 04:50 MST, A TERMINAL EMPLOYEE DISCOVERED CRUDE OIL BY THE "D" DOOR ON TANK 58 DURING NORMAL ROUNDS. A LEAK OCCURRED AT THE TANK'S BASE AS A RESULT OF A CRACKED FILLET WELD. THE CRACK WAS LOCATED APPROXIMATELY 3.5" FROM THE TANK SHELL AND WAS APPROXIMATELY 10" LONG. THE RELEASED CRUDE WAS CONTAINED WITHIN THE TANK BERM AND REMAINED IN THE VICINITY OF THE "D" DOOR WITH NO WATERWAYS IN DANGER OF BEING IMPACTED OR OTHER LONG TERM ENVIRONMENTAL REPERCUSSIONS. THE TANK WAS DRAINED AND CLEANED; REPAIRS ARE IN PROCESS.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date FEB 16,2005

No. 20050056 – 11602
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 655 / / 01 / / 18 / /2005 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 43° 27' 81" Longitude: -89° 14' 26"
   (If not available, see instructions for how to provide specific location)
   b. BAY CITY BAY
   City and County or Parish
   c. MI 48706
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   1637.05

4. Telephone report
   / 747485 / / 01 / / 18 / / 2005 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 30,000
Cost of environmental remediation	$ 15,000
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 750
Value of operator property damage	$ 0
Other Costs	$ 0
(describe)	
Total Costs:	$ 45,750

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 100
Recovered: 85

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

(715) 394-1500
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 5
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ● Other Specify: **IN PROTECTIVE CULVERT**
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ● Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

Year the component that failed was installed: / 2003 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 400 *PSIG*
   b. MOP at time of accident: 729 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ○ Above ground
   ○ Underground
   ○ Under water
   ○ Inside/under building
   ● Other **IN PROTECTIVE CULVERT**

2. *Depth of cover:* 24 *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 0 days 0 hours 45 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ _____ / hr. / 10 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 400
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes ○ No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ○ Other (specify) _____
3. Estimated leak duration days _____ hours 4

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: ○ Bare ○ Coated

b. Visual Examination: ○ Localized Pitting ○ General Corrosion ○ Other _____

c. Cause of Corrosion: ○ Galvanic ○ Atmospheric ○ Stray Current ○ Microbiological ○ Cathodic Protection Disrupted ○ Stress Corrosion Cracking ○ Selective Seam Corrosion ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? ○ No ○ Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion? ○ No ○ Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ● Temperature => ○ Thermal stress ○ Frost heave ● Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group: ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type: ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable ○ Landowner-not farming related ○ Farming ○ Raildroad ○ Other liquid or gas transmission pipeline-operator or their contractor ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ○ No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity?
      ○ Yes; Date received: / ___ / mo. / _____ / day / ___ / yr. ○ No
      Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: ○ Flags ○ Stakes ○ Paint
      ii. Permanent markings: ○ Yes ○ No
      iii. Marks were (check one) : ○ Accurate ○ Not Accurate
      iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

AT APPROXIMATELY 8:55 AM EST (6:55 AM MST) A LEAK OCCURRED AT THE BAY CITY STATION. THE APPARENT CAUSE OF THE LEAK WAS A FROZEN UNION ON THE 1" DIAMETER PIPING USED TO INJECT DRAG REDUCING AGENT INTO THE MAINLINE. THE LEAK WAS STOPPED AT APPROXIMATELY 9:00 AM EST, AND WAS CONTAINED TO THE STATION PROPERTY; CLEANUP OPERATIONS HAVE BEGUN. THE MAJORITY OF THE OIL WAS ON TOP OF A LAYER OF ICE AND FROZEN GRAVEL.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date APR 27,2005

No. 20050121 – 11605
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1230 / / 04 / / 01 / /2005 /
   hr. *month* *day* *year*

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: **42° 09' 53"** Longitude: **-88° 14' 19"**
   (If not available, see instructions for how to provide specific location)
   b. CARPENTERSVILLE MCHENRY
   City and County or Parish
   c. IL 60110
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   379.1562

4. Telephone report
   / 754520 / / 04 / / 01 / / 2005 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 7,500
(describe) PERMIT APPLICATION	
Operator Losses:	
Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 90,000
(describe) REPAIR/CLEANUP	
Total Costs:	$ 97,500

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 5
Recovered: 5

CAUSES FOR SMALL SPILLS ONLY ***(5 gallons to under 5 barrels) :*** **(For large spills [5 barrels or greater] see Part H)**

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
● **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

(715) 394-1500
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **6A**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(compld if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☐ Operator's Property
   ☒ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **OPA**

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ● Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / **1968** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: **250** *PSIG*
   b. MOP at time of accident: **619** *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ● Leak: ● Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☒ Automatic ☒ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☒ Automatic ☒ Remote Control ☐ Check Valve

c. Length of segment isolated **7** ft
d. Distance between valves **7** ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☐	High Resolution Magnetic Flux tool	Year run:
☐	Low Resolution Magnetic Flux tool	Year run:
☒	UT tool	Year run: **2002**
☒	Geometry tool	Year run: **2004**
☐	Caliper tool	Year run:
☒	Crack tool	Year run: **2004**
☐	Hard Spot tool	Year run:
☒	Other tool	Year run: **2000**

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / **34** / in.
2. Wall thickness **.28** / in.
3. Specification **5L** SMYS / **52000** /
4. Seam type **ERW**
5. valve type _____
6. *Manufactured by* _____ *in year* / **1968** /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ○ Above ground
   ● Underground ○ Under water
   ○ Inside/under building ○ Other _____

2. *Depth of cover:* **66** *inches*

PART F - CONSEQUENCES

1. **Consequences** *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? **0** days **18** hours **0** minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ **0** / hr. / **10** / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: **400**
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ○ Yes ● No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
   Amount in water **5** barrels
   Ocean/Seawater ● No ○ Yes
   Surface ● No ○ Yes
   Groundwater ○ No ● Yes
   Drinking water ● No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party O Other (specify) _____
3. Estimated leak duration days 0 hours 4

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic O Atmospheric
- O Stray Current O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: /____/

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group
      O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      O Landowner-not farming related O Farming O Raildroad
      O Other liquid or gas transmission pipeline-operator or their contractor
      O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact /___/
   e. Did operator get prior notification of excavation activity?
      O Yes; Date received: /___/ mo. /____/ day /___/ yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one): O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ● Body of Pipe => ● Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt => ○ Pipe ○ Fabrication ○ Other _____

18. ○ Fillet => ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ○ Pipe Seam => ○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
● Construction Defect => ● Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
○ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 1968 / yr. / 11 / mo. / 9 / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 24 / hr.

g. Estimated test pressure at point of accident: 840 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

AT APPROXIMATELY 12:30 PM CST WHILE EXCAVATING A DENT ANOMALY FOR THE PIPELINE INTEGRITY GROUP AT MP 379.1562 ON LINE 6A, AN OIL SHEEN BECAME VISIBLE ON TOP OF GROUND WATER WITHIN THE BELL HOLE. GARY HEIKKINEN (ENBRIDGE SITE INSPECTOR) IMMEDIATELY CALLED THE CONTROL CENTER AND HAD THE PIPELINE SHUT DOWN. ROBERTS PIPELINE WAS THE CONTRACTOR EXCAVATING AT THE TIME OF DISCOVERY. TOTAL VOLUME OUT OF PIPE WAS ESTIMATED AT 5 BARRELS.

AN INDEPENDENT ENVIRONMENTAL CONSULTANT WAS HIRED TO TAKE AND ANALYZE PERIODIC SOIL SAMPLES. RESULTS WERE USED TO DETERMINE SOIL REMOVAL. FINAL SAMPLES SHOWED NO SOIL CONTAMINATION REMAINED AT THE SITE. ALL OIL CONTAMINATED MATERIAL WAS TRANSPORTED TO A WASTE DISPOSAL FACILITY.

THE CAUSE FOR THIS LEAK WAS DETERMINED TO HAVE RESULTED FROM A DENT IN THE PIPE THAT SUSTAINED ROCK DAMAGE AFTER IT WAS PLACED INTO SERVICE. A PLIDCO SLEEVE WAS INSTALLED OVER THE DEFECT AND WAS WELDED INTO PLACE FOR A PERMANENT REPAIR.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JUN 27,2006

No. 20060183 -- 11609
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 440 / / 05 / / 31 / /2006 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 42° 54' 4" Longitude: -82° 30' 31"
   (If not available, see instructions for how to provide specific location)
   b. MARYSVILLE ST. CLAIR
   City and County or Parish
   c. MI 48074
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   1727.6

4. Telephone report
   / 798967 / / 05 / / 31 / / 2006 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 5,000
Other Costs	$ 145,000
(describe) REPAIR AND CLEANUP	
Total Costs:	$ 150,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled LIGHT SOUR BLEND
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 20
Recovered: 20

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

(715) 394-1500
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 5
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ● Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / 2004 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 210 *PSIG*
   b. MOP at time of accident: 701 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* VIKING PUMP *in year* / 2004 /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ○ Above ground
   ○ Underground ○ Under water
   ● Inside/under building ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 0 days 5 hours 0 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 1 / hr. / 0 / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 750
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ○ Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes ○ No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ○ Other (specify) _____
3. Estimated leak duration days 0 hours 5

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- ○ Bare
- ○ Coated

b. Visual Examination
- ○ Localized Pitting
- ○ General Corrosion
- ○ Other _____

c. Cause of Corrosion
- ○ Galvanic ○ Atmospheric
- ○ Stray Current ○ Microbiological
- ○ Cathodic Protection Disrupted
- ○ Stress Corrosion Cracking
- ○ Selective Seam Corrosion
- ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
○ No ○ Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
○ No ○ Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group
      ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type: ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable
      ○ Landowner-not farming related ○ Farming ○ Raildroad
      ○ Other liquid or gas transmission pipeline-operator or their contractor
      ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ○ No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity?
      ○ Yes; Date received: / ___ / mo. / _____ / day / ___ / yr. ○ No
      Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: ○ Flags ○ Stakes ○ Paint
      ii. Permanent markings: ○ Yes ○ No
      iii. Marks were (check one): ○ Accurate ○ Not Accurate
      iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. ● Seal Failure =>O Gasket O O-Ring ● Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

A LEAK OCCURRED ON THE ABOVE GROUND PIPING IN THE MARYSVILLE UPSTREAM DENSITOMETER BUILDING ON LINE 5, SPILLING CRUDE OIL OUT OF THE BUILDING AND INTO THE NEARBY DITCH. PRELIMINARY INVESTIGATION INDICATES THAT THE DENSITOMETER PUMP FAILED, CAUSING THE CRUDE OIL TO BE RELEASED. IT ALSO APPEARS THAT THE CHECK VALVE ON THE DISCHARGE SIDE OF THE DENSITOMETER PIPING FAILED, CAUSING CRUDE TO FLOW BACK INTO THE DENSITOMETER PUMP FROM THE MAIN LINE. CONTAMINATED SOIL WAS REMOVED FROM THE SITE. SAMPLES WERE TAKEN TO VERIFY CLEAN SOIL. THE PUMP AND CHECK VALVE WERE REPLACED, AND THE UNIT WAS PUT BACK INTO SERVICE ON 6/14/06.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JAN 30,2007

No. 20070029 – 11612
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 830 / / 01 / / 01 / /2007 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 44° 53' 27" Longitude: -90° 29' 50"
   (If not available, see instructions for how to provide specific location)
   b. ATWOOD CLARK
   City and County or Parish
   c. WI 54460
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   149.17

4. Telephone report
   / 822512 / / 01 / / 01 / / 2007 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 2,500
Value of operator property damage	$ 0
Other Costs	$ 700,000
(describe) REPAIR AND CLEANUP	
Total Costs:	$ 702,500

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled ALBIAN HEAVY SYNTHETIC
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 1,500
Recovered: 1,450

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

(715) 394-1500
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **14**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / _____ / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☐ Operator's Property
   ☒ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ● Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / **1998** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: **1,331** *PSIG*
   b. MOP at time of accident: **1,347** *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ● Rupture: ○ Circumferential - Separation
   ● Longitudinal - Tear/Crack, length *(inches)* **38**
   Propagation Length, total, both sides *(feet)* **6**
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve

c. Length of segment isolated **79,200** ft
d. Distance between valves **79,200** ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☒ Geometry tool Year run: **2006**
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / **24** / in.
2. Wall thickness **.33** / in.
3. Specification **API 5L X-70** SMYS / **70000** /
4. Seam type **HF ERW**
5. valve type _____
6. *Manufactured by* **STUPP** *in year* / **1998** /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ○ Above ground
   ● Underground ○ Under water
   ○ Inside/under building ○ Other _____

2. *Depth of cover:* **60** *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? **2** days **0** hours **4** minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ **2** / hr. / **30** / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: **4,625**
   c. Long term impact assessment performed: ● Yes ○ No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☒ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - ● Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
- O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
- O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
- O Landowner-not farming related O Farming O Raildroad
- O Other liquid or gas transmission pipeline-operator or their contractor
- O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / / /

e. Did operator get prior notification of excavation activity?
O Yes; Date received: / / mo. / / day / / yr. O No

Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: O Flags O Stakes O Paint
- ii. Permanent markings: O Yes O No
- iii. Marks were (check one): O Accurate O Not Accurate
- iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe => ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt => ○ Pipe ○ Fabrication ○ Other _____

18. ○ Fillet => ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ● Pipe Seam => ○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
● HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
○ Construction Defect => ○ Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
● Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 1998 / yr. / 8 / mo. / 31 / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 8 / hr.

g. Estimated test pressure at point of accident: 1804 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

AT APPROXIMATELY 0830 MST, A CALL WAS RECEIVED FROM THE EDMONTON CONTROL CENTER THAT THERE WAS A PRESSURE LOSS AT OWEN STATION. THE PIPELINE WAS IMMEDIATELY SHUT DOWN AND THE VESPER PLM CREW WAS NOTIFIED AND RESPONDED TO OWEN STATION. AT 1100 MST, THE LEAK WAS CONFIRMED BY VESPER PLM AND ADDITIONAL VESPER AND FORT ATKINSON PLM CREWS MOBILIZED MANPOWER AND EMERGENCY RESPONSE EQUIPMENT TO THE LEAK SITE. SUPERIOR AND BEMIDJI PLM CREWS WERE ALSO NOTIFIED AND BEGAN TO MOBILIZE MANPOWER AND EQUIPMENT. AN OPS INSPECTOR ARRIVED ON SITE JANUARY 2, 2007 AND WITNESSED THE REPAIR.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date FEB 28,2007

No. 20070048 – 9806
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident

/ 750 / / 02 / / 02 / /2007 /
hr. month day year

3. Location of accident
(If offshore, do not complete a through d See Part C.1)

a. Latitude: 45 37 13 Longitude: -91 15 25
(If not available, see instructions for how to provide specific location)

b. EXELAND RUSK
City and County or Parish

c. WI 54819
State and Zip Code

d. Mile post/valve station ● or Survey Station no. ○
(whichever gives more accurate location)
84.9

4. Telephone report

/ 825338 / / 02 / / 02 / / 2007 /
NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 25,000
Cost of emergency response phase	$ 8,575
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 103,300
Value of operator property damage	$ 279,212
Other Costs	$ 4,087,371
(describe) REPAIR & CLEANUP	
Total Costs:	$ 4,503,458

6. Commodity Spilled ● Yes ○ No
(If Yes, complete Parts a through c where applicable)

a. Name of commodity spilled MIXED SWEET BLEND

b. Classification of commodity spilled:
- ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
- ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
- ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
- ● Crude oil

c. Estimated amount of commodity involved :
- ● **Barrels**
- ○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 4,800
Recovered: 2,734

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

THERESA PICTON
(type or print) Preparer's Name and Title

(715) 394-1468
Area Code and Telephone Number

THERESA.PICTON@ENBRIDGE.COM
Preparer's E-mail Address

(832) 325-5477
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 14
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area ____ Block # ____
State / ____ / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☐ Operator's Property
   ☒ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA ____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: ____

   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ● Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* ____

   Year the component that failed was installed: / 1998 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 310 *PSIG*
   b. MOP at time of accident: 1,377 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ● Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ● Puncture, diameter *(inches)* 4
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* ____
   Propagation Length, total, both sides *(feet)* ____
   ○ N/A
   ○ Other ____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve

c. Length of segment isolated 95,673 ft
d. Distance between valves 95,673 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☐	High Resolution Magnetic Flux tool	Year run: ____
☐	Low Resolution Magnetic Flux tool	Year run: ____
☐	UT tool	Year run: ____
☒	Geometry tool	Year run: 2006
☐	Caliper tool	Year run: ____
☐	Crack tool	Year run: ____
☐	Hard Spot tool	Year run: ____
☐	Other tool	Year run: ____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 24 / in.
2. Wall thickness .33 / in.
3. Specification API5L SMYS / 70000 /
4. Seam type ERW
5. valve type ____
6. *Manufactured by* STUPP *in year* / 1997 /

PART E - ENVIRONMENT

1. *Area of accident*
   ● In open ditch
   ○ Under pavement ○ Above ground
   ○ Underground ○ Under water
   ○ Inside/under building ○ Other ____

2. *Depth of cover:* ____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 1 days 5 hours 10 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / ____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 29 / hr. / 10 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 4,300
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water 10 barrels
Ocean/Seawater ● No ○ Yes
Surface ● No ○ Yes
Groundwater ○ No ● Yes
Drinking water ● No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

If Yes, Check all that apply: ☐ Surface water ☒ Groundwater ☒ Soil ☒ Vegetation ☐ Wildlife

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - ● Other (specify) **ENBRIDGE CONTRACTOR**
3. Estimated leak duration days 1 hours 5

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: O Bare O Coated

b. Visual Examination: O Localized Pitting O General Corrosion O Other

c. Cause of Corrosion: O Galvanic O Atmospheric O Stray Current O Microbiological O Cathodic Protection Disrupted O Stress Corrosion Cracking O Selective Seam Corrosion O Other

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? O No O Yes, Year Protection Started: / /

e. Was pipe previously damaged in the area of corrosion? O No O Yes => Estimated time prior to accident: / / years / / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other
7. O High Winds

H3 - EXCAVATION DAMAGE

8. ● Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group: O General Public O Government O Excavator other than Operator/subcontractor

b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable O Landowner-not farming related O Farming O Raildroad O Other liquid or gas transmission pipeline-operator or their contractor O Nautical Operations O Other

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / /

e. Did operator get prior notification of excavation activity?
   O Yes; Date received: / / mo. / / day / / yr. O No
   Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
   i. Temporary markings: O Flags O Stakes O Paint
   ii. Permanent markings: O Yes O No
   iii. Marks were (check one) : O Accurate O Not Accurate
   iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

WHILE COMPLETING THE INSTALLATION OF A TRENCH BOX SYSTEM TO FACILITATE ROAD BORE OPERATIONS, AN ENBRIDGE CONTRACTOR PUNCTURED (1" X 4") THE ADJACENT LINE 14 WITH THE EDGE OF A STEEL ROAD PLATE. THE ADJACENT LINE WAS WELL MARKED PRIOR TO THIS INCIDENT. A THIRD PARTY HAS BEEN RETAINED TO PERFORM A COMPREHENSIVE INCIDENT INVESTIGATION WHICH IS CURRENTLY ONGOING. UNTIL THIS INVESTIGATION IS COMPLETE, INTERIM AWARENESS EDUCATION HAS BEEN PROVIDED TO ALL PERSONNEL WORKING ON THIS PROJECT. FURTHER MEASURES WILL BE TAKEN, IF NECESSARY, PENDING THE RESULTS OF THE INCIDENT INVESTIGATION.

INVESTIGATIVE ACTIVITIES HAVE DEFINED THE FULL NATURE AND EXTENT OF THE RELEASE. CORRETIVE ACTIONS ARE ONGOING USING SOIL VAPOR EXTRACTION AND AIR SPARGING TO ABATE RESIDUAL OIL AND REMEDIATE IMPACTED SOIL AND GROUNDWATER.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date DEC 27,2007

No. 20070362 – 11621
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1445 / / 11 / / 28 / /2007 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 47° 40' 24" Longitude: -95° 21' 12"
   (If not available, see instructions for how to provide specific location)
   b. CLEARBROOK CLEARWATER
   City and County or Parish
   c. MN 56634
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   912

4. Telephone report
   / 855741 / / 11 / / 28 / / 2007 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 30,875
Value of operator property damage	$ 800,000
Other Costs	$ 1,794,125
(describe) RESPONSE/REPAIR/REMEDIATION	
Total Costs:	$ 2,625,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled MIDALE BLEND
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 325
Recovered:

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

(715) 394-1500
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **LINE 3**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☐ Operator's Property
   ☒ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ● Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

Year the component that failed was installed: / 2007 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 319 *PSIG*
   b. MOP at time of accident: 757 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ● Other **SEE PART I NARRATIVE**

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve
   Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated 37,435 ft
d. Distance between valves 37,435 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☒	High Resolution Magnetic Flux tool	Year run: 2007
☐	Low Resolution Magnetic Flux tool	Year run:
☒	UT tool	Year run: 2006
☒	Geometry tool	Year run: 2006
☒	Caliper tool	Year run: 2006
☒	Crack tool	Year run: 2007
☐	Hard Spot tool	Year run:
☐	Other tool	Year run:

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 34 / in.
2. Wall thickness .34 / in.
3. Specification 5L-X52 SMYS / 52000 /
4. Seam type **SAW**
5. valve type _____
6. *Manufactured by* **USS** *in year* / 1968 /

PART E - ENVIRONMENT

1. *Area of accident*
   ● In open ditch
   ○ Under pavement ○ Above ground
   ○ Underground ○ Under water
   ○ Inside/under building ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	2	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	2	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 4 days 12 hours 0 minutes

c. Product ignited ● Yes ○ No d. Explosion ● Yes ○ No
e. ☒ **Evacuation** *(general public only)* / 17 / people
Reason for Evacuation:
○ Precautionary by company
● Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 13 / hr. / 0 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 5,000
   c. Long term impact assessment performed: ● Yes ○ No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☒ Groundwater ☒ Soil ☒ Vegetation ☐ Wildlife

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water 1 barrels
Ocean/Seawater ● No ○ Yes
Surface ● No ○ Yes
Groundwater ○ No ● Yes
Drinking water ● No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 1 hours 22

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group
      - O General Public O Government O Excavator other than Operator/subcontractor
   b. Type:
      - O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      - O Landowner-not farming related O Farming O Raildroad
      - O Other liquid or gas transmission pipeline-operator or their contractor
      - O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity?
      - O Yes; Date received: / ___ / mo. / _____ / day / ___ / yr. O No
      - Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      - i. Temporary markings: O Flags O Stakes O Paint
      - ii. Permanent markings: O Yes O No
      - iii. Marks were (check one): O Accurate O Not Accurate
      - iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: / / yr. / / mo. / / day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: / / hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. ● Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
● Other **SEE PART I NARRATIVE**

b. Number of employees involved who failed a post-accident test: drug test: / 0 / alcohol test / 0 /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ON NOVEMBER 28, 2007, ENBRIDGE WAS CONDUCTING MAINTENANCE ACTIVITIES TO REPLACE A PIPE SECTION ON THE COMPANY'S LINE 3 PIPELINE (APPROXIMATE MILEPOST 912) DOWNSTREAM OF COUINTY ROAD 3 NEAR CLEARBROOK IN CLEARWATER COUNTY, MINNESOTA. AT APPROXIMATELY 14:45, WHILE COMPLETING REPAIR OPERATIONS, A RELEASE OCCURRED AND THE RELEASED CRUDE OIL IGNITED.

ENBRIDGE INITIATED AND MOBILIZED A FULL INCIDENT RESPONSE TEAM INCLUDING SUPERIOR AND CHICAGO REGIONAL PERSONNEL AS WELL AS CORPORATE INCIDENT COMMAND SYSTEM (ICS) SUPPORT PERSONNEL, IN ACCORDANCE WITH THE COMPANY'S EMERGENCY RESPONSE PLAN. LOCAL LAW ENFORECEMENT, FIRE AND RESCUE PERSONNEL RESPONDED TO THE INCIDENT NOTIFICATION PROCEDURES. THE FIRE ENGULFED THE IMMEDIATE AREA AND BURNED INTENSELY FOR APPROXIMATELY 12 HOURS BEFORE IF COULD BE EXTINGUISHED BY EMERGENCY RESPONSE PERSONNEL, AT WHICH TIME TWO ENBRIDGE EMPLOYEE FATALATIES WERE CONFIRMED. REPRESENTATIVES FROM PHMSA CENTRAL REGION AND MN STATE FIRE MARSHAL - PIPELINE SAFETY TEAM WERE ON SITE AND PARTICIPATED IN THE DEVELOPMENT OF A REMOVAL AND PRESERVATION PLAN FOR THE FAILED PIPE SECTION. ADDITIONALLY, BOTH AGENCIES CONDUCTED INCIDENT INVESTIGATION PROCEDURES AND ACKNOWLEDGED THE PROPOSED RETURN-TO-SERVICE PLAN. FORMAL CORRESPONDENCE COMMUNICATING THE RETURN-TO-SERVICE PLAB WAS SYBNUTTED TO PHMSA AND MN STATE FIRE MARSHAL - PIPELINE SAFETY TEAM IN LETTER DATED 12/2/07. REPAIRS WERE COMPLETED ON 12/3/07 AND THE PIPELINE WAS RETURNED TO SERVICE IN ACCORDANCE WITH THE PLAN ON 12/3/07. THE INCIDENT INVESTIGATION IS CURRENTLY UNDERWAY AND A SUPPLEMENTAL REPORT WILL BE FILED UPON COMPLETION.

WELD+ENDS COUPLINGS LEAKED DUE TO INADEQUATE RESTRAINT

THE SEPARATION OF THE NEWLY INSTALLED WELD+ENDS COUPLING OCCURRED AS A RESULT OF INADEQUATE RESTRAINT THAT ALLOWED THE WELD+ENDS COUPLINGS TO SLIP SUFFICIENTLY RESULTING IN THE RELEASE OF CRUDE OIL WHEN FLOW IN LINE 3 WAS BEING RESTARTED.

THE SLIPPAGE OF THE WELD+ENDS COUPLINGS WAS THE RESULT OF SEVERAL SPECIFIC DEFICIENCIES WITH THE INSTALLATION. THESE DEFICIENCIES HAD A DIRECT BEARING ON THE AVAILABLE RESTRAINT, SUPPORT OR ANCHORING, FOR THE REPLACEMENT PIPE AND THE WELD+ENDS COUPLINGS AND INCLUDED:

- LENGTH OF PIPE EXPOSED AND BEND IN THE EXPOSED PIPE
- MODIFICATIONS TO WELD+END COUPLINGS
- INADEQUATE ASSESSMENT OF THE ANCHORAGE OR SUPPORT TO DETERMINE APPROPRIATE PRESSURE ON RESTART OF LINE 3

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAY 14,2008

No. 20080162 -- 9786
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1220 / / 04 / / 15 / /2008 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 41 31 42 Longitude: -87 25 25
   (If not available, see instructions for how to provide specific location)
   b. GRIFFITH LAKE
   City and County or Parish
   c. IN 46319
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   TANK 79 INLET LINE

4. Telephone report
   / 868005 / / 04 / / 15 / / 2008 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 192,002
(describe) REPAIR AND CLEANUP	
Total Costs:	$ 192,002

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled SUNCOR-OSH
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. **Estimated amount of commodity involved :**
   ● **Barrels**
   ○ **Gallons (check only if spill is less than one barrel)**
   Amounts :
   Spilled : 260
   Recovered: 260

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

THERESA PICTON
(type or print) Preparer's Name and Title

(715) 394-1468
Area Code and Telephone Number

THERESA.PICTON@ENBRIDGE.COM
Preparer's E-mail Address

(832) 325-5477
Area Code and Facsimile Number

Authorized Signature (type or print) Name and Title Date Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or IDTANK 79
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **HIGH POPULATION AREA**

3. Part of system involved in accident
   ● Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ● Other *(specify)* 1

Year the component that failed was installed: / 2007 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: _____ *PSIG*
   b. MOP at time of accident: _____ *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)* ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation ○ Longitudinal - Tear/Crack, length *(inches)* _____ Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / / in.
2. Wall thickness / in.
3. Specification _____ SMYS / /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ● Above ground
   ○ Underground ○ Under water
   ○ Inside/under building ○ Other _____
2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official
f. Elapsed time until area was made safe: / / hr. / 30 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 240
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ○ Yes ● No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party O Other (specify) _____
3. Estimated leak duration days _____ hours 4

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: O Bare O Coated

b. Visual Examination: O Localized Pitting O General Corrosion O Other _____

c. Cause of Corrosion: O Galvanic O Atmospheric O Stray Current O Microbiological O Cathodic Protection Disrupted O Stress Corrosion Cracking O Selective Seam Corrosion O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion? O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group: O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable O Landowner-not farming related O Farming O Raildroad O Other liquid or gas transmission pipeline-operator or their contractor O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity? O Yes; Date received: / ___ / mo. / _____ / day / ___ / yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one): O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: / / yr. / / mo. / / day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: / / hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. ● Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
● Other **FAILURE TO IDENTIFY A RISK DURING PRE PLANNING**

b. Number of employees involved who failed a post-accident test: drug test: / 0 / alcohol test / 0 /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ON APRIL 15, 2008, ENBRIDGE EXPERIENCED A RELEASE FROM A ONE INCH THERMAL RELIEF LINE ON THE COMPANY'S TANK 79 INLET PIPING AT OUR GRIFFITH, INDIANA TERMINAL FACILITY, WHILE A CONTRACTOR WAS PAINTING THE TANK SHELL. THE INTIAL RELEASE VOLUME WAS ESTIMATED AT 40 BARRELS, HOWEVER THE TOTAL RELEASE VOLUME HAS BEEN INCREASED TO 260 BARRELS TO ACCOUNT FOR ADDITIONAL VOLUMES THAT DRAINED WHILE THE TANK WAS PUMPED DOWN (APPX 4 HRS, 40 MINUTES). THE TOTAL VOLUME RELEASED WAS ISOLATED WITHIN THE TANK BERM AND RECOVERED WITH MINOR SOIL RESIDUALS EXCAVATED, DISPOSED OF AND STATE ENVIRONMENTAL REGULATORY CLOSURE IS PENDING.

CONTRACT PERSONNEL WERE PERFORMING ABRASIVE BLASTING ON A SUSPENDED SCAFFOLD ADJACENT TO THE SUBJECT PIPING. UPON RELEASE, THE CONTRACTORS LOWERED THE SCAFFOLDING AND EXITED THE AREA HOWEVER, 3 INDIVIDUALS WERE SPRAYED BY THE OIL AND WERE SENT TO THE HOSPITAL AS A PRECAUTION. NONE SUSTAINED INJURY; POST INCIDENT DRUG AND ALCOHOL TESTING WAS ALSO CONDUCTED.

THE INCIDENT INVESTIGATION CONCLUDED THAT ALTHOUGH THE PIPING WAS LOCATED UNDERNEATH THE CATWALK/STAIR PLATFORM AND DEEMED TO BE PROTECTED, AND A GROUND LABORER WAS ASSIGNED TO MONITOR RIGGING, AIRLINES AND HOSES, ONE OF THE RIGGING LINES LIKELY SNAGGED ON THE SMALL DIAMETER PIPING AND CAUSED THE LEAK.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JUN 26,2008

No. 20080200 -- 7361
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1209 / / 05 / / 27 / /2008 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 41 44 26 Longitude: -86 30 21
   (If not available, see instructions for how to provide specific location)
   b. NEW CARLISLE ST JOSEPH
   City and County or Parish
   c. IN 46552
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   519

4. Telephone report
   / 872228 / / 05 / / 27 / / 2008 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 100,000
(describe) CLEANUP	
Total Costs:	$ 100,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
   ● Barrels
   ○ Gallons (check only if spill is less than one barrel)
   Amounts :
   Spilled : 6
   Recovered:

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

THERESA PICTON
(type or print) Preparer's Name and Title

(715) 394-1468
Area Code and Telephone Number

THERESA.PICTON@ENBRIDGE.COM
Preparer's E-mail Address

(832) 325-5477
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 6
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area ____ Block # ____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA ____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ● Other Specify: **INACTIVE LOOP LINE SCRAPER FACILITY**
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ● Other *(specify)* **BOLTED FITTING - GASKET**

   Year the component that failed was installed: / 1994 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 20 *PSIG*
   b. MOP at time of accident: 624 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* ____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* ____
   Propagation Length, total, both sides *(feet)* ____
   ○ N/A
   ○ Other ____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated ____ ft
d. Distance between valves ____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: ____
   ☐ Low Resolution Magnetic Flux tool Year run: ____
   ☐ UT tool Year run: ____
   ☐ Geometry tool Year run: ____
   ☐ Caliper tool Year run: ____
   ☐ Crack tool Year run: ____
   ☐ Hard Spot tool Year run: ____
   ☐ Other tool Year run: ____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 34 / in.
2. Wall thickness .25 / in.
3. Specification API-5L-X52 SMYS / ____ /
4. Seam type ____
5. valve type ____
6. *Manufactured by* ____ *in year* / 1994 /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ Under pavement ○ In open ditch
   ● Underground ○ Above ground
   ○ Inside/under building ○ Under water
   ○ Other ____

2. *Depth of cover:* 60 *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? ____ days ____ hours ____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / ____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ ____ / hr. / 30 / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 440
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ○ Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water ____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 7 hours ____

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: O Bare O Coated

b. Visual Examination: O Localized Pitting O General Corrosion O Other _____

c. Cause of Corrosion: O Galvanic O Atmospheric O Stray Current O Microbiological O Cathodic Protection Disrupted O Stress Corrosion Cracking O Selective Seam Corrosion O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion? O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group: O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable O Landowner-not farming related O Farming O Raildroad O Other liquid or gas transmission pipeline-operator or their contractor O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / /
   e. Did operator get prior notification of excavation activity? O Yes; Date received: /___/ mo. /___/ day /___/ yr. O No
   Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one): O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe =>○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component =>○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ● Joint =>● Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt =>○ Pipe ○ Fabrication ○ Other _____

18. ○ Fillet =>○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ○ Pipe Seam =>○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
● Construction Defect => ○ Poor Workmanship ● Procedure not followed ○ Poor Construction Procedures
○ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 1979 / yr. / 8 / mo. / 8 / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 24 / hr.

g. Estimated test pressure at point of accident: 824 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure =>○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

THE DEACTIVATED LOOP LINE SECTION C1 HAD BEEN REPRESSURIZED WITH NITROGEN ON MAY 20, 2008. ON MAY 27TH, MAINTENANCE ACTIVITY WAS SCHEDULED ON LINE 6B AND DURING THE LOCK OUT PROCESS OIL WAS DISCOVERED. UPON EXCAVATING THE RELEASE AREA, IT WAS DETERMINED THAT A FLANGE CONNECTION WAS THE SOURCE. FURTHER INVESTIGATION REVEALED THAT AN INCORRECT GASKET HAD BEEN INSTALLED. THE CORRECT GASKET WAS INSTALLED ON 5/29/08. AT THIS TIME ALL CONTAMINATED SOIL HAS BEEN REMOVED AND SOIL SAMPLES HAVE CLEARED US TO BACKFILL THE EXCAVATION.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date SEP 24,2008

No. 20080284 -- 11625
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1145 / / 08 / / 25 / /2008 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 46° 41' 16" Longitude: -90° 03' 31"
   (If not available, see instructions for how to provide specific location)
   b. SUPERIOR DOUGLAS
   City and County or Parish
   c. WI 54880
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   TANK 9 RELIEF LINE

4. Telephone report
   / 881751 / / 08 / / 25 / / 2008 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 800
Value of operator property damage	$ 2,000
Other Costs	$ 48,000
(describe) REPAIR & CLEANUP	
Total Costs:	$ 50,800

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 115
Recovered: 108

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **TANK 9 RELIEF LINE**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **OP, DW, CNW**

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ● Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / 1990 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 30 *PSIG*
   b. MOP at time of accident: 224 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 24 / in.
2. Wall thickness .38 / in.
3. Specification **API 5L GRADE B** SMYS / 35000 /
4. Seam type **SINGLE SAW**
5. valve type _____
6. *Manufactured by* _____ *in year* / 1990 /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ○ Above ground
   ● Underground ○ Under water
   ○ Inside/under building ○ Other _____
2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 0 days 7 hours 0 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 0 / hr. / 12 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 500
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ○ Yes ● No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ○ Yes ● No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ○ Other (specify) _____
3. Estimated leak duration days 1 hours _____

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ● Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: ○ Bare ● Coated

b. Visual Examination: ○ Localized Pitting ○ General Corrosion ● Other N/A

c. Cause of Corrosion: ○ Galvanic ○ Atmospheric ○ Stray Current ● Microbiological ○ Cathodic Protection Disrupted ○ Stress Corrosion Cracking ○ Selective Seam Corrosion ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? ○ No ● Yes, Year Protection Started: / 1990 /

e. Was pipe previously damaged in the area of corrosion? ● No ○ Yes => Estimated time prior to accident: / / years / / months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group: ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type: ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable ○ Landowner-not farming related ○ Farming ○ Raildroad ○ Other liquid or gas transmission pipeline-operator or their contractor ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ○ No If Yes, Date of last contact / /
   e. Did operator get prior notification of excavation activity?
      ○ Yes; Date received: / / mo. / / day / / yr. ○ No
      Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: ○ Flags ○ Stakes ○ Paint
      ii. Permanent markings: ○ Yes ○ No
      iii. Marks were (check one) : ○ Accurate ○ Not Accurate
      iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: / / yr. / / mo. / / day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: / / hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / / alcohol test / /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

AT APPROXIMATELY 12:45 PM CENTRAL TIME (11:45 AM MST) ON AUGUST 25, 2008, DURING ROUTINE SITE INPECTION, SUPERIOR TERMINAL OPERATIONS PERSONNEL NOTICED OIL ON THE GROUND CONTAINED IN THE NORTHWEST CORNER OF THE TANK 9 TANK LOT. AT THE TIME OF DISCOVERY INCOMING DELIVERY LINES NO. 1,2,3 AND 4 WERE SHUT DOWN, AND THE RELIEF LINE SERVICING THE TERMINAL WAS ISOLATED. PERSONNEL WAS IMMEDIATELY MOBILIZED TO SECURE THE AREA, INITATE INVESTIGATION AND CLEAN-UP THE SITE. THE NATIONAL RESPONSE CENTER, PHMSA AND WISCONSIN DEPARTMENT OF NATURAL RESOURCES WERE NOTIFIED. FREE PRODUCT WAS COLLECTED AND APPROXIMATELY 108 BARRELS WERE RECOVERED (FROM THE 115 BBLS RELEASED). THE REMAINING VOLUME OF OIL ABSORBED INTO THE SURROUNDING SOIL. THE CONTAMINATED SOIL (CLAY) WAS EXCAVATED AND 500 YARDS OF MATERIAL WAS REMOVED FROM THE SITE FOR TREATMENT/DISPOSAL AT A LICENCED FACILITY.

UPON INVESTIGATION THE LEAK WAS CONFIRMED TO ORIGINATE FROM THE 24-INCH TANK 9 RELIEF LINE. THE LEAK WAS LOCATED APPROXIMATELY 95 FEET NORTHWEST FROM VALVE 301-V-921 WITHIN THE TANK LOT. AT THE TIME OF THE INCIDENT THE LINE PRESSURE WAS LESS THAN 30 PSI. UPON INITIAL ASSESSMENT THE SUSPECTED CAUSE OF THE LEAK WAS INTERNAL CORROSION AT THE UNDERSIDE OF THE PIPE (SIX O'CLOCK POSITION). THE LINE WAS CLEANED AND REPAIRED USING A 24-INCH PLIDCO SPILT +SLEEVE AND RETURNED TO SERVICE. ALL INCOMING DELIVERY LINES TO THE TERMINAL WERE RESTARTED BY 8:00 PM CENTRAL TIME (7:00 PM MST), AUGUST 25, 2008.

FOLLOW-UP ASSESSMENT

AN APPROXIMATE 20 FOOT SECTION OF PIPE AROUND THE LEAK SITE WAS EXCAVATED, CLEANED AND ULTRASONICALLY TESTED (C-SCAN) BY A THIRD-PARTY TESTING COMPANY ON AUGUST 28, 2008. ADDITIONAL CORROSION FEATURES WERE FOUND WITHIN THIS TEST SECTION, HOWEVER THESE CORROSION ANOMOLIES ARE WITHIN ENBRIDGE CORROSION TOLERANCES AND DO NOT REQUIRE IMMEDIATE REPAIR AND THE LINE REMAINS "FIT FOR DUTY". THE ASSESSMENT RESULTS FOR THIS RELIEF LINE WILL BE FURTHER EVALUATED BY ENBRIDGE AND INCORPORATED INTO THE STATION PIPING PROGRAM AND RISK ASSESSMENT FOR SYSTEM INTEGRITY MANAGEMENT.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAR 18,2009

No. 20090071 – 11628
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 630 / / 02 / / 27 / /2009 /
   hr. *month* *day* *year*

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 48° 12' 43" Longitude: -96° 26' 11"
   (If not available, see instructions for how to provide specific location)
   b. VIKING MARSHALL
   City and County or Parish
   c. MN 56760
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   847.91 VIKING STATION

4. Telephone report
   / 898632 / / 02 / / 27 / / 2009 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 6
Value of operator property damage	$ 0
Other Costs	$ 4,000
(describe) REPAIR AND CLEANUP	
Total Costs:	$ 4,006

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled LIGHT SOUR BLEND
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
○ Barrels
● Gallons (check only if spill is less than one barrel)

Amounts :
Spilled : 5
Recovered: 5

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ● Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 13
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ● Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / 1998 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 764 *PSIG*
   b. MOP at time of accident: 836 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 0.5 / in.
2. Wall thickness _____ / in.
3. Specification SCHEDULE 80 SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* UNKNOWN *in year* / 1998 /

PART E - ENVIRONMENT

1. *Area of accident*
   ● In open ditch
   ○ Under pavement ○ Above ground
   ○ Underground ○ Under water
   ○ Inside/under building ○ Other _____
2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 0 days 4 hours 0 minutes

c. Product ignited ● Yes ○ No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official
f. Elapsed time until area was made safe:
/ 0 / hr. / 15 / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ○ Yes ● No
If Yes, estimated number of cubic yards: _____
c. Long term impact assessment performed: ● Yes ○ No
d. Anticipated remediation ○ Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: /____/

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group
      O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      O Landowner-not farming related O Farming O Raildroad
      O Other liquid or gas transmission pipeline-operator or their contractor
      O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact /___/
   e. Did operator get prior notification of excavation activity?
      O Yes; Date received: /___/ mo. /___/ day /___/ yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one) : O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: / _____ / yr. / _____ / mo. / _____ / day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: / _____ / hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. ● Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices ● Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / 0 / alcohol test / 0 /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

MECHANICAL AND ELECTRICAL TECHNICIANS WERE ATTEMPTING TO THAW THE 1/2" DRAG REDUCING AGENT (DRA) LINE THAT FEEDS INTO LINE 13 AT VIKING, MN STATION. THE WHISTLE CONTAINING THE DRA INJECTION LINE WAS CONFIRMED TO BE GAS FREE AND A PROPANE HEATER WAS LOWERED INTO THE BOTTOM OF THE WHISTLE. THREADED CONNECTIONS AT SUBSEQUENT POINTS ALONG THE 1/2" FEEDER LINE WERE LOOSENED TO VERIFY THAT THE DRA WAS FLOWING. DURING THIS PROCESS, WHILE LOOSENING THE 1/2" ELBOW AT THE TRANSITION FLANGE FROM 1/2" TO 2", A FIRE STARTED WITHIN THE WHISTLE WHEN CRUDE ESCAPED FROM THE LOOSENED FITTING AND WAS IGNITED BY THE PROPANE HEATER. THE FIRE BURNED APPROXIMATELY 15 MINUTES AND DAMAGED THE 2" VALVE AND A PORTION OF THE DRA FEEDER LINE. LINE 13 WAS SHUT DOWN FOR APPROXIMATELY 4 HOURS AND THE REPAIRS AND CLEANUP HAVE BEEN COMPLETED. A FULL INVESTIGATION OF THIS INCIDENT ENSUED.

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Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JUN 16,2009

No. 20090170 – 11646
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 11169 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE ENERGY, LIMITED PARTNERSHIP
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1400 / / 05 / / 21 / /2009 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 46° 41' 6" Longitude: -92° 3' 35"
   (If not available, see instructions for how to provide specific location)
   b. SUPERIOR DOUGLAS
   City and County or Parish
   c. WI 54880
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   0

4. Telephone report
   / 906291 / / 05 / / 21 / / 2009 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 700
Value of operator property damage	$ 0
Other Costs	$ 116,557
(describe) CLEANUP/ENV CONSULTANT	
Total Costs:	$ 117,257

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled WESTERN CANADIAN SELECT
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
   ● Barrels
   ○ Gallons (check only if spill is less than one barrel)
   Amounts :
   Spilled : 154
   Recovered: 140

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 61
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State / _____ / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **OPA/USA/DRINKING WATER**

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ● Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / 2007 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 400 *PSIG*
   b. MOP at time of accident: 1,490 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ Under pavement ○ In open ditch
   ○ Underground ● Above ground
   ○ Inside/under building ○ Under water
   ○ Other _____

2. *Depth of cover:* 36 *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 6 / hr. / _____ / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 700
c. Long term impact assessment performed: ● Yes ○ No
d. Anticipated remediation ○ Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days _____ hours 1

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group
      O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      O Landowner-not farming related O Farming O Raildroad
      O Other liquid or gas transmission pipeline-operator or their contractor
      O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity?
      O Yes; Date received: / ___ / mo. / ___ / day / ___ / yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one) : O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. ● Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices ● Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /0/ alcohol test /0/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

THIS RELEASE OCCURRED DURING ROUTINE TESTING OF SCADA EMERGENCY SHUTDOWN SYSTEMS. THE CONTROL CENTER CONTACTED A LOCAL TECHNICIAN TO INVESTIGATE THE STATUS OF THE TWO SCRAPER TRAP ISOLATION VALVES, AS THE TESTS COULDN'T BE RUN WITHOUT THOSE VALVES. THE TECHNICIAN OBSERVED THAT THE VALVES WERE LOCKED OUT BY THE PIPELINE MAINTENANCE CREW. HE CALLED THE PERSON RESPONSIBLE FOR THE LOCKS AND OBTAINED PERMISSION TO REMOVE THEM AND RESTORE THE FULL VALVES TO REMOTE STATUS.

AFTER INVESTIGATING AN EQUIPMENT FAULT ON THE OTHER END OF THE STATION, THE TECHNICIAN RETURNED TO THE AREA AND OBSERVED OIL FLOWING OUT OF THE TRAP SUMP. THE TECHNICIAN WAS UNAWARE OF AN OPEN VENT LINE FROM THE TRAP TO THE SUMP THAT WAS LEFT OPEN BY THE MAINTENANCE CREW TO PREVENT THE SCRAPER TRAP FROM OVERPRESSURING DUE TO THERMAL EXPANSION. WHILE THE CONTROL CENTER WAS EXECUTING THE SCADA CHECKS THE SCRAPER TRAP WAS OPENED TO THE MAINLINE, ALLOWING OIL TO FLOW THROUGH THE TRAP INTO THE SUMP.

THE OIL WAS CONTAINED IN THE TERMINAL CONTAINMENT SYSTEM AND IMMEDIATELY CLEANED UP. FREE PRODUCT WAS REMOVED WITH VACUUM TRUCKS. IMPACTED SOIL WAS COLLECTED AND HAULED TO AN APPROVED LANDFILL FACILITY.

AT THIS TIME THE RESULTS OF THE INCIDENT INVESTIGATION ARE PENDING. PRELIMINARY INDICATIONS ARE THAT THE ROOT CAUSES OF THE INCIDENT ARE FAILURE TO FOLLOW LOCK-OUT PROCEDURES AND INADEQUATE PROCEDURES FOR ISOLATING AND VENTING THE SCRAPER TRAP SYSTEM.

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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: 01/31/2013
U.S Department of Transportation Pipeline and Hazardous Materials Safety Administration	**Report Date:** 04/02/2010 **No.** 20100021 - 15021 (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. Public reporting for this collection of information is estimated to be approximately 10 hours per response (5 hours for a small release), including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this 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.*

PART A - KEY REPORT INFORMATION

Report Type: *(select all that apply)*	**Original:** Yes	**Supplemental:**	**Final:**
Report Status:	Submitted		
Create Date:	04/01/2010		
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:	01/08/2010 23:38		
5. Location of Accident:			
Latitude:	48.99555		
Longitude:	-97.52554		
6. National Response Center Report Number (if applicable):	928066		
7. Local time *(24-hr clock)* and date of initial telephonic report to the National Response Center (if applicable):	01/09/2010 03:21		
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): B			
9. Estimated volume of commodity released unintentionally (Barrels):	3,784.00		
10. Estimated volume of intentional and/or controlled release/blowdown (Barrels):			
11. Estimated volume of commodity recovered (Barrels):	1,547.00		
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:	01/08/2010 23:41
14b. Local time pipeline/facility restarted:	01/13/2010 09:17
- 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:	01/08/2010 23:38
18b. Local time Operator resources arrived on site:	01/09/2010 02:20
PART B - ADDITIONAL LOCATION INFORMATION	
1. Was the origin of Accident onshore?	Yes
If Yes, Complete Questions (2-12)	
If No, Complete Questions (13-15)	
- If Onshore:	
2. State:	North Dakota
3. Zip Code:	58265
4. City	NECHE
5. County or Parish	PEMBINA
6. Operator-designated location:	Milepost/Valve Station
Specify:	MP 774.18
7. Pipeline/Facility name:	
8. Segment name/ID:	LINE 2 MP 774.18
9. Was Accident on Federal land, other than the Outer Continental Shelf (OCS)?	No
10. Location of Accident:	Pipeline Right-of-way
11. Area of Accident (as found):	Underground
Specify:	Under soil
- If Other, Describe:	
Depth-of-Cover (in):	42
12. Did Accident occur in a crossing?	No
If Yes, specify 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 Pipeline, Including Valve Sites
- If Onshore Breakout Tank or Storage Vessel, Including Attached Appurtenances, specify:	

3. Item involved in Accident:	Pipe
- If Pipe, specify:	Pipe Seam
3a. Nominal diameter of pipe (in):	26
3b. Wall thickness (in):	.281
3c. SMYS (Specified Minimum Yield Strength) of pipe (psi):	52,000
3d. Pipe specification:	API 5L
3e. Pipe Seam , specify:	Flash Welded
- If Other, Describe:	
3f. Pipe manufacturer:	A.O. SMITH
3g. Year of manufacture:	1954
3h. Pipeline coating type at point of Accident, specify:	Coal Tar
- If Other, Describe:	
- If Weld, including heat-affected zone, specify:	
- 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:	1959
5. Material involved in Accident:	Carbon Steel
- If Material other than Carbon Steel, specify:	
6. Type of Accident Involved:	Rupture
- If Mechanical Puncture – Specify Approx. size:	
in. (axial) by	
in. (circumferential)	
- If Leak - Select Type:	
- If Other, Describe:	
- If Rupture - Select Orientation:	Longitudinal
- If Other, Describe:	
Approx. size: in. (widest opening) by	5.5
in. (length circumferentially or axially)	50
- 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:	Yes
4. Anticipated remediation:	Yes
4a. If Yes, specify all that apply:	
- Surface water	
- Groundwater	
- Soil	Yes
- 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?	No
7. Did the released commodity reach or occur in one or more High Consequence Area (HCA)?	No
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:	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
- 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 :	
8a. Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator	$ 150,000
8b. Estimated cost of commodity lost	$ 167,775
8c. Estimated cost of Operator's property damage & repairs	$ 76,940
8d. Estimated cost of Operator's emergency response	$ 1,633,060
8e. Estimated cost of Operator's environmental remediation	$ 2,100,000
8f. Estimated other costs	$
Describe:	
8g. Estimated total costs (sum of above)	$ 4,127,775

PART E - ADDITIONAL OPERATING INFORMATION

1. Estimated pressure at the point and time of the Accident (psig):	725.00
2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig):	809.00
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?	Yes
- If Yes - (*Complete 5a. – 5f. below*)	
5a. Type of upstream valve used to initially isolate release source:	Remotely Controlled
5b. Type of downstream valve used to initially isolate release source:	Remotely Controlled
5c. Length of segment isolated between valves (ft):	220,862
5d. Is the pipeline configured to accommodate internal inspection tools?	Yes
- 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?	No
- 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?	Yes
6d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	Yes
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?	Yes
8. How was the Accident initially identified for the Operator?	Controller
- If Other, Specify:	
8a. If "Controller", "Local Operating Personnel", including contractors", "Air Patrol", or "Guard Patrol by Operator or its contractor" is selected in Question 8, specify the following:	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?	Yes, specify investigation result(s): (select all that apply)
- 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)*	
- 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	Yes
- 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	Yes
- Investigation identified no controller issues	Yes
- 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:	G5 - Material Failure of Pipe or Weld
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:	Original Manufacturing-related (NOT girth weld or other welds formed in the field)
1. The sub-cause selected below 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)	Yes
- 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 Original Manufacturing-related (NOT girth weld or other welds formed in the field):	
2. List contributing factors: *(select all that apply)*	
- Fatigue or Vibration-related:	Yes
Specify:	Pressure-related
- If Other, Describe:	
- Mechanical Stress:	
- Other	
- If Other, Describe:	
- If Environmental Cracking-related:	
3. Specify:	
- 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:	Yes
- If Other, Describe:	Not Yet Identified
5. Has one or more internal inspection tool collected data at the point of the Accident?	Yes
5a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	Yes
Most recent year run:	2007
- Ultrasonic	
Most recent year run:	
- Geometry	
Most recent year run:	
- Caliper	Yes
Most recent year run:	2009
- Crack	Yes
Most recent year run:	2009
- 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?	Yes
- If Yes:	
Most recent year tested:	1994
Test pressure (psig):	1,124.00
7. Has one or more Direct Assessment been conducted on the pipeline 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:	
8. Has one or more non-destructive examination(s) been conducted at the point of the Accident since January 1, 2002?	No
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:	
- 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 January 8, 2010 at 23:38 local time, the Enbridge Control Centre noticed a sudden drop in pressure on line 2 and immediately shut the pipeline down. Enbridge Superior Region Operations and Central Region Operations (Canada) were notified and dispatched. Upon arrival, company personnel discovered a leak estimated at approximately 3,000 barrels contained primarily to the Company right-of-way. Additional Company resources were immediately dispatched to control and clean-up the released oil, investigate the cause of the release and to repair the pipeline for return to service. The National Response Center and North Dakota State Incident Reporting Hotlines were contacted.

The preliminary cause of the pipeline rupture was a failure in a section of the longitudinal seam of the pipe. The affected pipe segment was removed during the repair and has been sent to a third-party metallurgical lab for analysis. The pipeline was repaired and was restarted on January 13, 2010 at approximately 09:17 local time. Site dean-up (soil excavation) is currently still being completed; however no long term remediation activities are expected.

A PHMSA representative was onsite during the emergency response and repair activities and was involved with the return to service plan. Enbridge will be working withPHMSA during the investigation and will be sharing the results of the investigation/failure analysis.

PART I - PREPARER AND AUTHORIZED SIGNATURE

Preparer's Name	THERESA M PICTON
Preparer's Title	ADMINSITRATIVE ASSISTANT
Preparer's Telephone Number	715-394-1468
Preparer's E-mail Address	THERESA.PICTON@ENBRIDGE.COM
Preparer's Facsimile Number	832-325-5477
Authorized Signature's Name	DAVID HOFFMAN
Authorized Signature Title	COMPLIANCE SUPERVISOR
Authorized Signature Telephone Number	715-394-1540
Authorized Signature Email	DAVID.HOFFMAN@ENBRIDGE.COM
Date	02/05/2010

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: 01/31/2013
U.S Department of Transportation Pipeline and Hazardous Materials Safety Administration	**Report Date:** 05/17/2010 **No.** 20100081 - 15097 (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. Public reporting for this collection of information is estimated to be approximately 10 hours per response (5 hours for a small release), including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this 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.*

PART A - KEY REPORT INFORMATION

Report Type: *(select all that apply)*	**Original:**	**Supplemental:**	**Final:**
	Yes		
Report Status:	Submitted		
Create Date:	05/13/2010		
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:	04/17/2010 19:00		
5. Location of Accident:			
Latitude:	47.31006		
Longitude:	-93.73207		
6. National Response Center Report Number (if applicable):	937630		
7. Local time *(24-hr clock)* and date of initial telephonic report to the National Response Center (if applicable):	04/17/2010 19:48		
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): B			
9. Estimated volume of commodity released unintentionally (Barrels):	5.00		
10. Estimated volume of intentional and/or controlled release/blowdown (Barrels):			
11. Estimated volume of commodity recovered (Barrels):	4.00		
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:	04/17/2010 19:00
14b. Local time pipeline/facility restarted:	04/18/2010 19:10
- 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:	04/17/2010 19:00
18b. Local time Operator resources arrived on site:	04/17/2010 19:00
PART B - ADDITIONAL LOCATION INFORMATION	
1. Was the origin of Accident onshore?	Yes
If Yes, Complete Questions (2-12)	
If No, Complete Questions (13-15)	
- If Onshore:	
2. State:	Minnesota
3. Zip Code:	56636
4. City	Deer River
5. County or Parish	Itasca
6. Operator-designated location:	Milepost/Valve Station
Specify:	997.79
7. Pipeline/Facility name:	Line 2
8. Segment name/ID:	Deer River to Floodwood Section
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):	Underground
Specify:	Under soil
- If Other, Describe:	
Depth-of-Cover (in):	12
12. Did Accident occur in a crossing?	No
If Yes, specify 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 Pipeline, Including Valve Sites
- If Onshore Breakout Tank or Storage Vessel, Including Attached	

Appurtenances, specify:	
3. Item involved in Accident:	Pipe
- If Pipe, specify:	Pipe Seam
3a. Nominal diameter of pipe (in):	26
3b. Wall thickness (in):	.281
3c. SMYS (Specified Minimum Yield Strength) of pipe (psi):	52,000
3d. Pipe specification:	5L
3e. Pipe Seam , specify:	Flash Welded
- If Other, Describe:	
3f. Pipe manufacturer:	IPSCO
3g. Year of manufacture:	1956
3h. Pipeline coating type at point of Accident, specify:	Coal Tar
- If Other, Describe:	
- If Weld, including heat-affected zone, specify:	
- 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:	1959
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:	Crack
- 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:	Yes
1a. If Yes, specify all that apply:	
- Fish/aquatic	
- Birds	Yes
- Terrestrial	
2. Soil contamination:	Yes
3. Long term impact assessment performed or planned:	No
4. Anticipated remediation:	Yes
4a. If Yes, specify all that apply:	
- Surface water	Yes
- Groundwater	Yes
- Soil	Yes
- Vegetation	
- Wildlife	
5. Water contamination:	Yes
5a. If Yes, specify all that apply:	
- Ocean/Seawater	
- Surface	Yes
- Groundwater	Yes
- Drinking water: *(Select one or both)*	
- Private Well	
- Public Water Intake	
5b. Estimated amount released in or reaching water (Barrels):	5.00
5c. Name of body of water, if commonly known:	unnamed creek/flowage
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:	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
- 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	Yes
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	Yes
8. Estimated cost to Operator :	
8a. Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator	$ 20,000
8b. Estimated cost of commodity lost	$ 350
8c. Estimated cost of Operator's property damage & repairs	$ 550,000
8d. Estimated cost of Operator's emergency response	$ 180,000
8e. Estimated cost of Operator's environmental remediation	$ 216,000
8f. Estimated other costs	$
Describe:	
8g. Estimated total costs (sum of above)	$ 966,350

PART E - ADDITIONAL OPERATING INFORMATION

1. Estimated pressure at the point and time of the Accident (psig):	368.00
2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig):	593.00
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?	Yes
- If Yes, Complete 4.a and 4.b below:	
4a. Did the pressure exceed this established pressure restriction?	No
4b. Was this pressure restriction mandated by PHMSA or the State?	PHMSA
5. Was "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend" selected in PART C, Question 2?	Yes
- If Yes - *(Complete 5a. – 5f. below)*	
5a. Type of upstream valve used to initially isolate release source:	Remotely Controlled
5b. Type of downstream valve used to initially isolate release source:	Remotely Controlled
5c. Length of segment isolated between valves (ft):	49,061
5d. Is the pipeline configured to accommodate internal inspection tools?	Yes
- 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?	No

- 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 "Guard Patrol by Operator or its contractor" is selected in Question 8, specify the following:	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?	Yes, specify investigation result(s): (select all that apply)
- 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)*	
- 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	Yes
Provide an explanation for why not:	Investigation of incident revealed the CC Operator's actions were not the cause of the leak, nor was there any indication that a leak occurred prior to call to Control Centre reporting a suspected leak. Once the report was received, the Control Centre Operator and Shift Lead responded as per procedures. Scheduled rotations, continuous hours of service, and concerns of fatigue are continually monitored and were within the guidelines set by the CC Compliance and Mgmt.
- Investigation identified no control room issues	Yes
- Investigation identified no controller issues	Yes
- 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:	G5 - Material Failure of Pipe or Weld
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:	Original Manufacturing-related (NOT girth weld or other welds formed in the field)
1. The sub-cause selected below is based on the following: *(select all that apply)*	
- Field Examination	Yes
- Determined by Metallurgical Analysis	
- Other Analysis	Yes
- If "Other Analysis", Describe:	Field NDE (UT and Mag Particle) Inspect
- Sub-cause is Tentative or Suspected; Still Under Investigation (Supplemental Report required)	Yes
- 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 Original Manufacturing-related (NOT girth weld or other welds formed in the field):	
2. List contributing factors: *(select all that apply)*	
- Fatigue or Vibration-related:	Yes
Specify:	Other
- If Other, Describe:	Under Investigation
- Mechanical Stress:	
- Other	
- If Other, Describe:	
- If Environmental Cracking-related:	
3. Specify:	
- 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	Yes
- 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?	Yes
5a. If Yes, for each tool used, select type of internal inspection tool and indicate most recent year run:	
- Magnetic Flux Leakage	Yes
Most recent year run:	2008
- Ultrasonic	
Most recent year run:	
- Geometry	
Most recent year run:	
- Caliper	Yes
Most recent year run:	2008
- Crack	Yes
Most recent year run:	2009
- Hard Spot	
Most recent year run:	
- Combination Tool	
Most recent year run:	
- Transverse Field/Triaxial	
Most recent year run:	
- Other	Yes
Most recent year run:	2009
Describe:	Line Proving Run
6. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident?	Yes

- If Yes:	
Most recent year tested:	1975
Test pressure (psig):	952.00
7. Has one or more Direct Assessment been conducted on the pipeline 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:	
8. Has one or more non-destructive examination(s) been conducted at the point of the Accident since January 1, 2002?	No
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:	
- 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 April 17, 2010 at approximately 11:30 am local time, while performing investigative follow-up work after a brush fire crossed Lines 1 and 2, Enbridge Environmental representative discovered and reported what appeared to be a small amount of oil on the right of way at MP 997.79. Lines 1 and 2 were shut down as a precaution and Enbridge Pipeline Maintenance personnel were dispatched to investigate. After hand-excavating the impacted area, a small crack was discovered and confirmed on the longitudinal seam of Line 2 at approximately 7:00 pm local time. The defect was located in a marshy area and the site access and investigation progress was hampered by poor site access and ground conditions. External notifications to the National Response Center and Minnesota State Duty Officer were made upon confirmation of the leak. Notifications were also made directly to the Minnesota Office of Pipeline Safety, PHMSA, Minnesota Pollution Control Agency and the Minnesota Interagency Fire Center.

Once the pipe was excavated the entire long seam of the joint of pipe in question was field assessed by NDE (both UT and magnetic particle inspection). No other defects were identified. An integrity assessment was completed by Enbridge¿s Pipeline Integrity Group and the pipeline was repaired using a PLIDCO Split Sleeve. The return to service plan was reviewed with PHMSA and MNOPS and Line 2 was restarted on April 18 at approximately 7:10 pm.

The integrity assessment of this line segment is ongoing and the section of pipe in question will be cut out for further metallurgical analysis when conditions allow. Enbridge Environment Group is managing site cleanup and restoration in conjunction with a number of agencies (both local and state).

PART I - PREPARER AND AUTHORIZED SIGNATURE

Preparer's Name	Theresa Picton
Preparer's Title	Compliance Analyst
Preparer's Telephone Number	715-394-1468
Preparer's E-mail Address	theresa.picton@enbridge.com
Preparer's Facsimile Number	832-325-5477
Authorized Signature's Name	David Hoffman
Authorized Signature Title	SupervisorPipeline Safety Compliance
Authorized Signature Telephone Number	715-394-1540
Authorized Signature Email	david.hoffman@enbridge.com
Date	05/13/2010

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: 01/31/2013
U.S Department of Transportation Pipeline and Hazardous Materials Safety Administration	**Report Date:**	07/27/2010
	No.	20100156 - 15213 (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. Public reporting for this collection of information is estimated to be approximately 10 hours per response (5 hours for a small release), including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this 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.*

PART A - KEY REPORT INFORMATION

Report Type: *(select all that apply)*	**Original:**	**Supplemental:**	**Final:**
	Yes		**Yes**
Report Status:	Submitted		
Create Date:	07/27/2010		
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:	07/02/2010 10:15		
5. Location of Accident:			
Latitude:	47.32444		
Longitude:	-93.76306		
6. National Response Center Report Number (if applicable):	946374		
7. Local time *(24-hr clock)* and date of initial telephonic report to the National Response Center (if applicable):	07/02/2010 14:22		
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): B			
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?	No
- If No, Explain:	
- 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:	07/02/2010 10:15
18b. Local time Operator resources arrived on site:	07/02/2010 10:15
PART B - ADDITIONAL LOCATION INFORMATION	
1. Was the origin of Accident onshore?	Yes
If Yes, Complete Questions (2-12)	
If No, Complete Questions (13-15)	
- If Onshore:	
2. State:	Minnesota
3. Zip Code:	56636
4. City	Deer River
5. County or Parish	Itasca
6. Operator-designated location:	Milepost/Valve Station
Specify:	995.9077
7. Pipeline/Facility name:	Line 4 - 36"
8. Segment name/ID:	Deer River Sending Trap
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 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:	Scraper/Pig Trap
- 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 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:	2002
5. Material involved in Accident:	Material other than Carbon Steel
- If Material other than Carbon Steel, specify:	Trap Door Seal, Buna N O-Ring
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:	

Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
- High Population Area:	
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	
- 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	Yes
Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program?	Yes
8. Estimated cost to Operator :	
8a. Estimated cost of public and non-Operator private property damage paid/reimbursed by the Operator	$
8b. Estimated cost of commodity lost	$
8c. Estimated cost of Operator's property damage & repairs	$ 14,000
8d. Estimated cost of Operator's emergency response	$ 45,000
8e. Estimated cost of Operator's environmental remediation	$ 78,000
8f. Estimated other costs	$
Describe:	
8g. Estimated total costs (sum of above)	$ 137,000

PART E - ADDITIONAL OPERATING INFORMATION

1. Estimated pressure at the point and time of the Accident (psig):	519.00
2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig):	1,050.00
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)*	
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:	
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 "Guard Patrol by Operator or its contractor" is selected in Question 8, specify the following:	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)*	Root cause was Trap Door O-Ring Failure
- 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 selected below 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 Original Manufacturing-related (NOT girth weld or other welds formed in the field):	
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:	
- 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:	Non-threaded Connection 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:	O-Ring
- If Other – Describe:	
- 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	Yes

- If Other, Describe:	O-Ring parted at connecting point
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 2, 2010 at approximately 10:15 AM local time, while performing routine site inspection at the Deer River Station, the Enbridge site technician observed oil spraying from the Line 4 36" sending trap door. The technician immediately bypassed and isolated the trap and contacted the area PLM and Management. The free product was collected and the sending trap was drained. After inspecting the trap door, it was discovered that the O-Ring in the trap door had failed. The O-Ring was immediately replaced and the trap was returned to normal operation.

Contaminated soil from the impacted area was removed and will be disposed at an approved facility.

PART I - PREPARER AND AUTHORIZED SIGNATURE

Preparer's Name	Theresa Picton
Preparer's Title	Compliance Analyst
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Preparer's Facsimile Number	(832)325-5477
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Authorized Signature Title	Supervisor US Pipeline Safety Compliance
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Date	07/27/2010

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date OCT 26,2005

No. 20050310 -- 3600
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 15774 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (NORTH DAKOTA) LLC
   d. Operator street address 2625 RAILWAY AVE
   e. Operator address MINOT WARD ND 58703-5002
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 755 / / 09 / / 27 / /2005 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: Longitude:
   (If not available, see instructions for how to provide specific location)
   b. BENSON
   City and County or Parish
   c. ND
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   77.5

4. Telephone report
   / 773998 / / 09 / / 27 / / 2005 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 10,000
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 1,800
Value of operator property damage	$ 0
Other Costs	$ 338,200
(describe) CLEANUP/REPAIR COSTS	
Total Costs:	$ 350,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 350
Recovered: 320

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

VALERIE LAVIK
(type or print) Preparer's Name and Title

(701) 857-0852
Area Code and Telephone Number

VALERIE.LAVIK@ENBRIDGE.COM
Preparer's E-mail Address

(701) 857-0809
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID LINE 81
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☐ Operator's Property
   ☒ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ● Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / 1962 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 628 *PSIG*
   b. MOP at time of accident: 913 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ● Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ● Puncture, diameter *(inches)* 3
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve
   Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated 129,241 ft
d. Distance between valves 129,241 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☒	High Resolution Magnetic Flux tool	Year run: 2004
☐	Low Resolution Magnetic Flux tool	Year run:
☐	UT tool	Year run:
☐	Geometry tool	Year run:
☐	Caliper tool	Year run:
☒	Crack tool	Year run: 2005
☐	Hard Spot tool	Year run:
☐	Other tool	Year run:

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 16 / in.
2. Wall thickness .25 / in.
3. Specification 5L X52 SMYS / 52000 /
4. Seam type ERW
5. valve type _____
6. *Manufactured by* LONE STAR *in year* / 1962 /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ○ Above ground
   ● Underground
   ○ Under water
   ○ Inside/under building
   ○ Other _____

2. *Depth of cover:* 36 *inches*

PART F - CONSEQUENCES

1. **Consequences** *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 0 days 23 hours 0 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ / hr. / / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 4,457
   c. Long term impact assessment performed: ● Yes ○ No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - ● A third party
   - O Other (specify) _____
3. Estimated leak duration days _____ hours 3

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. ● Third Party *(complete a-f)*
   a. Excavator group
      O General Public O Government ● Excavator other than Operator/subcontractor
   b. Type:
      ● Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      O Landowner-not farming related O Farming O Raildroad
      O Other liquid or gas transmission pipeline-operator or their contractor
      O Nautical Operations O Other _____
   c. Excavation was: ● Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ● Yes O No If Yes, Date of last contact / /
   e. Did operator get prior notification of excavation activity?
      ● Yes; Date received: /08/ mo. / 02 / day /2005/ yr. O No
      Notification received from: ● One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? ● No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one): O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: / / yr. / / mo. / / day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: / / hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / / alcohol test / /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

THE RELEASE WAS REPORTED TO ENBRIDGE PIPELINES (NORTH DAKOTA) ON THE NPS 16 PIPELINE FROM MINOT TO CLEARBROOK BETWEEN MP 77 AND 78, AT 7:55 A.M., TUESDAY, SEPT. 27, 2005. APPROXIMATELY 350 BARRELS OF SWT WAS RELEASED, CONTAMINATING AN AREA APPROXIMATELY 2700 SQUARE YARDS. THE LINE WAS SHUT IN AND ALL FREE PRODUCT WAS HAULED BACK TO MINOT STATION. THE LINE WAS BACK IN SERVICE WITH A PERMANENT REPAIR EARLY WEDNESDAY (09/28/05) MORNING. THE RELEASE WAS REPORTED TO THE NRC (REPORT #769975) AND THE NORTH DAKOTA DIVISION OF EMERGENCY MANAGEMENT (REPORT #05-120).

THE LINE WAS STRUCK BY HEAVY EQUIPMENT DURING HIGHWAY CONSTRUCTION ON U.S. HIGHWAY 2. ENBRIDGE HAD PROVIDED THE CONSTRUCTION CONTRACTOR WITH THE APPROXIMATE HORIZONTAL LOCATION OF THE PIPELINE IN RESPONSE TO THE CONTRACTOR'S ONE-CALL NOTIFICATION ON AUGUST 2, 2005. THE CONTRACTOR INFORMED ENBRIDGE THAT EXCAVATION ACTIVITIES WOULD NOT OCCUR IN THE VICINITY OF THE PIPELINE. THE EXCAVATION ACTIVITIES CONTINUED UNTIL THE STRIKE OCCURRED ON SEPTEMBER 27 WITHOUT FURTHER ONE-CALL NOTIFICATIONS BY THE CONTRACTOR. MOST OF THE OIL WAS CONTAINED WITHIN THE HIGHWAY CONSTRUCTION BORROW PIT ESTABLISHED BY THE CONTRACTOR.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date DEC 13,2007

No. 20070352 -- 7215
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 15774 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (NORTH DAKOTA) LLC
   d. Operator street address 2625 RAILWAY AVE
   e. Operator address MINOT WARD ND 58703
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident

/ 250 / / 11 / / 24 / /2007 /
hr. month day year

3. Location of accident
(If offshore, do not complete a through d See Part C.1)

a. Latitude: Longitude:
(If not available, see instructions for how to provide specific location)

b. MAXBASS BOTTINEAU
City and County or Parish

c. ND 58760
State and Zip Code

d. Mile post/valve station ○ or Survey Station no. ○
(whichever gives more accurate location)

4. Telephone report

/ 855355 / / 11 / / 24 / / 2007 /
NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 10,300
(describe) CLEAN UP COST	
Total Costs:	$ 10,300

6. Commodity Spilled ● Yes ○ No
(If Yes, complete Parts a through c where applicable)

a. Name of commodity spilled U.S. HIGH SWEET - CLEARBROOK

b. Classification of commodity spilled:
- ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
- ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
- ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
- ● Crude oil

c. Estimated amount of commodity involved :

● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 84
Recovered: 84

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

VALERIE LAVIK
(type or print) Preparer's Name and Title

(701) 857-0852
Area Code and Telephone Number

VALERIE.LAVIK@ENBRIDGE.COM
Preparer's E-mail Address

(701) 857-0809
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **85**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / _____ / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ● Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / **1960** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: _____ *PSIG*
   b. MOP at time of accident: _____ *PSIG*
   c. Did an overpressurization occur relating to the accident?
   ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ● Above ground
   ○ Underground ○ Under water
   ○ Inside/under building ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official
f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 8
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ○ Yes ● No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - ● Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days _____ hours 1

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
O Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / / /

e. Did operator get prior notification of excavation activity?
O Yes; Date received: / ___ / mo. / ___ / day / ___ / yr. O No
Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
i. Temporary markings: O Flags O Stakes O Paint
ii. Permanent markings: O Yes O No
iii. Marks were (check one): O Accurate O Not Accurate
iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. ● Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices ● Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / 0 / alcohol test / 0 /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

STATION SUMP OVER FILLED AND RELEASED 84 BARRELS OF CRUDE ONTO THE GROUND. HUMAN ERROR LED TO A 2" VALVE TO THE SUMP BEING LEFT OPEN. ALL CRUDE WAS CONTAINED WITHIN THE STATION HEADER CONTAINMENT BERM ON THE LAND OWNED BY ENBRIDGE. ALL FREE PRODUCT WAS PICKED UP AND RE-INJECTED INTO THE LINE. CONTAMINATED SOIL WAS PICKED UP AND HAULED TO A REGISTERED FACILITY.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date FEB 21,2007

No. 20070043 -- 5589
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 15774 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (NORTH DAKOTA) LLC
   d. Operator street address 2505 16TH ST SW, SUITE 200
   e. Operator address MINOT WARD ND 58701
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1545 / / 01 / / 25 / /2007 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 48-17-10 Longitude: 102-25-30
   (If not available, see instructions for how to provide specific location)
   b. STANLEY MOUNTRAIL
   City and County or Parish
   c. ND 58784
   State and Zip Code
   d. Mile post/valve station ○ or Survey Station no. ○
   (whichever gives more accurate location)

4. Telephone report
   / 824671 / / 01 / / 25 / / 2007 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 62,000
Cost of environmental remediation	$ 6,000
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 750
Value of operator property damage	$ 7,000
Other Costs	$ 0
(describe)	
Total Costs:	$ 75,750

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. **Estimated amount of commodity involved :**
   ● **Barrels**
   ○ **Gallons (check only if spill is less than one barrel)**
   Amounts :
   Spilled : 215
   Recovered: 200

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

VALERIE K. LAVIK
(type or print) Preparer's Name and Title

(701) 857-0852
Area Code and Telephone Number

VALERIE.LAVIK@ENBRIDGE.COM
Preparer's E-mail Address

(701) 857-0809
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **STANLEY STATION**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **US OPA**

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ● Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

Year the component that failed was installed: / 1983 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 1,700 *PSIG*
   b. MOP at time of accident: 980 *PSIG*
   c. Did an overpressurization occur relating to the accident? ● Yes ○ No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 10 / in.
2. Wall thickness .12 / in.
3. Specification API X42 SMYS / 42000 /
4. Seam type **ERW**
5. valve type **N/A**
6. *Manufactured by* **UNKNOWN** *in year* / /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ Under pavement ○ In open ditch
   ○ Underground ● Above ground
   ○ Inside/under building ○ Under water
   ○ Other _____
2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 0 days 6 hours 0 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official
f. Elapsed time until area was made safe:
/ / hr. / / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 296
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☒ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
O Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /

e. Did operator get prior notification of excavation activity?
O Yes; Date received: / ___ / mo. / ___ / day / ___ / yr. O No

Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: O Flags O Stakes O Paint
- ii. Permanent markings: O Yes O No
- iii. Marks were (check one) : O Accurate O Not Accurate
- iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: / / yr. / / mo. / / day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: / / hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. ● Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices ● Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / 0 / alcohol test / 0 /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

STANLEY STATION CONTAINS PIPING FROM A DIESEL UNIT THAT WAS REMOVED IN 2004. THIS PIPING WAS USED FOR EXISTING PISTON PUMPS THAT INJECT PRODUCT FROM THE STANLEY TANKS UNTIL NOVEMBER OF 2006. IN NOVEMBER OF 2006, DISCHARGE PIPING FROM THE INJECTION PUMPS WAS MODIFIED. THIS MODIFICATION LEFT APPROXIMATELY 80 FEET OF 10¿ PIPE IDLED SUBJECT TO DISCHARGE PRESSURE. OF THIS 80 FEET OF PIPE, 20 FEET WAS ISOLATED WITH A CHECK VALVE. JANUARY 25TH WAS THE WARMEST DAY OF THE YEAR WITH LOCAL TEMPERATURES REACHING 43 DEGREES F. THIS 20 FEET OF PIPING ISOLATED FROM THE REST WAS EXPOSED TO THERMAL EXPANSION. THIS CREATED A PRESSURE LARGE ENOUGH TO RUPTURE THE PIPE ON THE DOWNSTREAM SIDE OF THE CHECK VALVE. THE CHECK THEN ALLOWED OIL TO FLOW FROM THE MAINLINE THROUGH THE DISCHARGE PIPING, THROUGH THE CHECK AND OUT OF THE RUPTURED STATION PIPE. PRESSURE WAS ESTIMATED USING CALCULATIONS BASED ON OBSERVED TEMPERATURE RISE. THE RELEASE WAS ISOLATED, CONTAINED AND IMMEDIATELY CLEANED UP. THE FLAPPER WAS REMOVED FROM THE CHECK VALVE TO ELIMINATE THE CAUSE OF THE INCIDENT.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAR 27,2003

No. 20030109 – 11652
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31448 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / / /
   c. Name of Operator ENBRIDGE PIPELINES (TOLEDO) INC.
   d. Operator street address 21 W SUPERIOR ST
   e. Operator address DULUTH ST LOUIS MN 55802-2067
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident

/ 1904 / / 02 / / 27 / /2003 /
hr. month day year

3. Location of accident
(If offshore, do not complete a through d See Part C.1)

a. Latitude: 41° 48' 24" Longitude: -83° 36' 00"
(If not available, see instructions for how to provide specific location)

b. SAMARIA MONROE
City and County or Parish

c. MI
State and Zip Code

d. Mile post/valve station ● or Survey Station no. ●
(whichever gives more accurate location)
71.60 /// MARATHON TANK FARM

4. Telephone report

/ 638043 / / 02 / / 27 / / 2003 /
NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 95,000
Cost of environmental remediation	$ 30,000
Other Costs	$ 130,000
(describe) ENBRIDGE LABOR COSTS	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 0
(describe)	
Total Costs:	$ 255,000

6. Commodity Spilled ● Yes ○ No
(If Yes, complete Parts a through c where applicable)

a. Name of commodity spilled CRUDE OIL

b. Classification of commodity spilled:
- ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
- ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
- ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
- ● Crude oil

c. Estimated amount of commodity involved :
- ● **Barrels**
- ○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 130
Recovered: 125

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

- ○ **Corrosion**
- ○ **Natural Forces**
- ○ **Excavation Damage**
- ○ **Other Ouside Force Damage**
- ○ **Materal and/or Weld Failures**
- ○ **Equipment**
- ○ **Incorrect Operation**
- ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 17
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State / _____ / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pump ○ Component ○ Repair Sleeve ○ Girth Weld
   ○ Pipe Seam ● Sump ○ Valve ○ Welded Fitting
   ○ Scraper Trap ○ Joint ○ Metering Facility ○ Bolted Fitting
   ○ Other *(specify)* _____

   Year the component that failed was installed: / 1998 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 150 *PSIG*
   b. MOP at time of accident: 864 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)* ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation ○ Longitudinal - Tear/Crack, length *(inches)* _____ Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 12 / in.
2. Wall thickness .5 / in.
3. Specification API5L SMYS / 35000 /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / 1998 /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ● Above ground
   ○ Under water
   ○ Other _____
   ○ Under pavement
   ○ Underground
   ○ Inside/under building

2. *Depth of cover:* 3 *inches*

PART F - CONSEQUENCES

1. **Consequences** *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 160
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ○ Yes ● No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - ● CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 1

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. ● Temperature => O Thermal stress O Frost heave ● Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
O Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /

e. Did operator get prior notification of excavation activity?
O Yes; Date received: / ___ / mo. / ___ / day / ___ / yr. O No

Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: O Flags O Stakes O Paint
- ii. Permanent markings: O Yes O No
- iii. Marks were (check one): O Accurate O Not Accurate
- iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: / / yr. / / mo. / / day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: / / hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / / alcohol test / /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

A 1-INCH DIAMETER DRAIN VALVE WAS ATTACHED HORIZONTALLY (WITH AN L-PIPE EXTENSION) TO THE BOTTOM OF THE PROVER PIPE SYSTEM AT SAMARIA, MI. THIS L-PIPE ARRANGEMENT CREATED AN AREA FOR WATER TO COLLECT AND DID NOT ALLOW FOR THE EXPANSION OF ICE. THE VALVE RUPTURED AS A RESULT OF WATER THAT HAD SETTLED OUT FROM THE CRUDE AND FROZE. THE CAUSE OF THIS INCIDENT WAS DETERMINED TO BE NATURAL FORCES; SPECIFICALLY, TEMPERATURE WITH SUBCAUSE BEING FROZEN COMPONENT.

THE L-PIPE HAS BEEN REMOVED AND THE 1-INCH VALVE HAS BEEN PLACED IN THE VERTICAL POSITION ALLOWING ANY FUTURE ICE EXPANSION TO ESCAPE INTO THE LARGER 12-INCH PROVER PIPE RUN. ALL SIMILAR VALVE INSTALLATIONS AT SAMARIA, MI AND OREGON, OH HAVE BEEN UPGRADED TO PREVENT A SIMILAR OCCURRENCE.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date DEC 08,2003

No. 20040008 -- 1842
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: [x] Original Report [ ] Supplemental Report [ ] Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31884 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (LOUISIANA LIQUIDS) LLC
   d. Operator street address 1100 LOUISIANA SUITE 3300
   e. Operator address HOUSTON HARRIS TX 77002
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1910 / / 10 / / 19 / /2003 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 29.6307297 Longitude: -89.9521332
   (If not available, see instructions for how to provide specific location)
   b. PLAQUEMINES
   City and County or Parish
   c. LA 70037
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   MP 32

4. Telephone report
   / 703360 / / 10 / / 22 / / 2003 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 25
Value of operator property damage	$ 0
Other Costs	$ 400,000
(describe) REPAIR	
Total Costs:	$ 400,025

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled PROPYLENE
   b. Classification of commodity spilled:
   ● HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ○ Crude oil

c. Estimated amount of commodity involved :
○ **Barrels**
● **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 17
Recovered:

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
● **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

KEN MOORE
(type or print) Preparer's Name and Title

(713) 821-2000
Area Code and Telephone Number

KENNETH.MOORE@ENBRIDGE.COM
Preparer's E-mail Address

(713) 353-1769
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **PP LINE**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ○ Yes ● No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ● Body of Pipe ○ Pump ○ Component ○ Repair Sleeve ○ Girth Weld
   ○ Pipe Seam ○ Sump ○ Valve ○ Welded Fitting
   ○ Scraper Trap ○ Joint ○ Metering Facility ○ Bolted Fitting
   ○ Other *(specify)* _____

Year the component that failed was installed: / 1959 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 600 *PSIG*
   b. MOP at time of accident: 1,000 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)* ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation ○ Longitudinal - Tear/Crack, length *(inches)* _____ Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ● Other **CRACK IN PIPE - SOURCE UNDER INVESTIGATION**

b. Type of block valve used for isolation of immediate section:
   Upstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve

c. Length of segment isolated 59,748 ft
d. Distance between valves 59,748 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ● No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 16 / in.
2. Wall thickness .31 / in.
3. Specification API 5L X52 SMYS / 52000 /
4. Seam type **DSAW**
5. valve type _____
6. *Manufactured by* **REPUBLIC STEEL** *in year* / 1959 /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ Under pavement ○ Underground ○ Inside/under building
   ○ In open ditch ○ Above ground ● Under water ○ Other _____
2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 20 days 5 hours 45 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 0 / hr. / 0 / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
b. Soil Contamination ○ Yes ● No
If Yes, estimated number of cubic yards: _____
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ○ Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - ● A third party
   - O Other (specify) _____
3. Estimated leak duration days 9 hours 1

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: O Bare O Coated

b. Visual Examination: O Localized Pitting O General Corrosion O Other _____

c. Cause of Corrosion: O Galvanic O Atmospheric O Stray Current O Microbiological O Cathodic Protection Disrupted O Stress Corrosion Cracking O Selective Seam Corrosion O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion? O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group: O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable O Landowner-not farming related O Farming O Raildroad O Other liquid or gas transmission pipeline-operator or their contractor O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact /___/
   e. Did operator get prior notification of excavation activity? O Yes; Date received: /___/ mo. /___/ day /___/ yr. O No
   Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one) : O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe => ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ● Butt => ● Pipe ○ Fabrication ○ Other _____

18. ○ Fillet => ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ○ Pipe Seam => ○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
○ Construction Defect => ○ Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
○ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 2002 / yr. / 5 / mo. / 24 / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 8 / hr.

g. Estimated test pressure at point of accident: 1284 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

LEAK RESULTED FROM A 2" (+/-) CRACK, WHICH LIKELY BEGAN IN THE GIRTH WELD AND PROPAGATED INTO THE PARENT PIPE. HOWEVER, THE CAUSE OF THE CRACK IS STILL BEING EVALUATED.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date APR 27,2004

No. 20040103 -- 2123
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31884 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / / /
   c. Name of Operator ENBRIDGE PIPELINES (LOUISIANA LIQUIDS) LLC
   d. Operator street address 1100 LOUISIANA SUITE 3300
   e. Operator address HOUSTON HARRIS TX 77002
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1840 / / 10 / / 22 / /2003 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 29 43 25.83N Longitude: 90 00 44.02W
   (If not available, see instructions for how to provide specific location)
   b. BELLE CHASSE PLAQUEMINES
   City and County or Parish
   c. LA 70037
   State and Zip Code
   d. Mile post/valve station ○ or Survey Station no. ●
   (whichever gives more accurate location)
   1808+21

4. Telephone report
   / 703360 / / 10 / / 22 / / 2003 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 0
Value of operator property damage	$ 425,000
Other Costs	$ 0
(describe)	
Total Costs:	$ 425,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled PROPYLENE
   b. Classification of commodity spilled:
   ● HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ○ Crude oil

c. Estimated amount of commodity involved :
   ○ Barrels
   ● Gallons (check only if spill is less than one barrel)
   Amounts :
   Spilled : 17
   Recovered:

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* : **(For large spills [5 barrels or greater] see Part H)**

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
● Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

KENNETH MOORE, MANAGER TRANSMISSION
(type or print) Preparer's Name and Title

(713) 821-2287
Area Code and Telephone Number

KENNETH.MOORE@ENBRIDGE.COM
Preparer's E-mail Address

(713) 353-5620
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **16" PROPYLENE LINE**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ○ Yes ● No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☐ Operator's Property
   ☒ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ● Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / **1959** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: **600** *PSIG*
   b. MOP at time of accident: **1,022** *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ● Leak: ● Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated **595,056** ft
d. Distance between valves **595,056** ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ● No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / **16** / in.
2. Wall thickness **.31** / in.
3. Specification **API 5L GRADE X** SMYS / **52000** /
4. Seam type **ERW**
5. valve type **NA**
6. *Manufactured by* **REPUBLIC STEEL** *in year* / /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ○ Above ground
   ○ Underground
   ● Under water
   ○ Inside/under building
   ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. Consequences ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? **27** days **0** hours **0** minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ **0** / hr. / **0** / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ○ Yes ● No
If Yes, estimated number of cubic yards: _____
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ○ Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - ● A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: O Bare O Coated

b. Visual Examination: O Localized Pitting O General Corrosion O Other _____

c. Cause of Corrosion: O Galvanic O Atmospheric O Stray Current O Microbiological O Cathodic Protection Disrupted O Stress Corrosion Cracking O Selective Seam Corrosion O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion? O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group: O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable O Landowner-not farming related O Farming O Raildroad O Other liquid or gas transmission pipeline-operator or their contractor O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity? O Yes; Date received: /___/ mo. /___/ day /___/ yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one): O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. ● Pipe Seam => ● LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
● Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g O No

d. Date of test: / 2002 / yr. / 5 / mo. / 25 / day

e. Test medium: ● Water O Inert Gas O Other _____

f. Time held at test pressure: / 8 / hr.

g. Estimated test pressure at point of accident: 1278 *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / / alcohol test / /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

MANUFACTURING DEFECT IN THE SEAM WELD CAUSED EVENT.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAY 19,2006

No. 20060138 – 11653
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31448 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (TOLEDO) INC.
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1820 / / 04 / / 20 / /2006 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 42° 3' 39" Longitude: -83° 49' 54"
   (If not available, see instructions for how to provide specific location)
   b. BRITTON LENAWEE
   City and County or Parish
   c. MI 49229
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   49.3

4. Telephone report
   / 796108 / / 05 / / 04 / / 2006 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 0
Value of operator property damage	$ 10,000
Other Costs	$ 105,000
(describe) REPAIR AND CLEANUP	
Total Costs:	$ 115,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled WESTERN CANADIAN SELECT
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
   ● Barrels
   ○ Gallons (check only if spill is less than one barrel)
   Amounts :
   Spilled : 25
   Recovered: 25

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **17**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / _____ / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☒ High Consequence Area (HCA)?
   Describe HCA **HPA**

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on

○ Body of Pipe	○ Pipe Seam	○ Scraper Trap
○ Pump	○ Sump	○ Joint
● Component	○ Valve	○ Metering Facility
○ Repair Sleeve	○ Welded Fitting	○ Bolted Fitting
○ Girth Weld		

   ○ Other *(specify)* _____

   Year the component that failed was installed: / **2004** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident:
   1,160 *PSIG*
   b. MOP at time of accident:
   1,480 *PSIG*
   c. Did an overpressurization occur relating to the accident?
   ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☐ High Resolution Magnetic Flux tool	Year run: _____
☐ Low Resolution Magnetic Flux tool	Year run: _____
☐ UT tool	Year run: _____
☐ Geometry tool	Year run: _____
☐ Caliper tool	Year run: _____
☐ Crack tool	Year run: _____
☐ Hard Spot tool	Year run: _____
☐ Other tool	Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ● Above ground
   ○ Underground
   ○ Under water
   ○ Inside/under building
   ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? **0** days **5** hours **0** minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ **0** / hr. / **10** / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: **210**
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ○ Yes ● No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - ● A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 5

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
O Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / ___ /

e. Did operator get prior notification of excavation activity?
O Yes; Date received: / ___ / mo. / _____ / day / ____ / yr. O No
Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: O Flags O Stakes O Paint
- ii. Permanent markings: O Yes O No
- iii. Marks were (check one) : O Accurate O Not Accurate
- iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. ● Threads Stripped Broken Pipe Coupling => ● Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

A WOMAN OF THE PUBLIC CALLED THE CONTROL CENTRE INFORMING THEM OF A LEAK AT OUR BRITTON PUMP STATION. NOTIFICATION PROCEDURES WERE FOLLOWED, AND A LOCAL TECHNICIAN TRAVELED TO THE SITE. APPROXIMATELY 25 BBLS. OF OIL HAD LEAKED FROM NEARBY THE PUMP (WHICH IS NOT LOCATED INSIDE A BUILDING) AND WAS POOLED IN A COUPLE LOCATIONS AT THE STATION, AND HAD SPRAYED OVER THE PUMP AND OTHER PARTS OF THE STATION AND NEARBY PUBLIC ROAD. THE LINE HAD BEEN SHUT DOWN UPON RECEIVING THE CALL FROM THE WOMAN. UPON FURTHER EXAMINATION, IT WAS FOUND THAT A NIPPLE ON A PRESSURE TRANSMITTER NEAR THE PUMP HAD CRACKED. THE NIPPLE WAS ISOLATED WITH A 2" VALVE, THE STATION SUCTION AND DISCHARGE VALVES WERE CONFIRMED CLOSED, AND THE AUTHORITY WAS GIVEN TO START THE LINE ON STATION BYPASS. CREWS WERE MOBILIZED TO CLEAN THE SPILL AND REPAIR THE CRACKED NIPPLE. THE ROAD AND THE DITCH WERE ONLY IMPACTED BY A MIST OF OIL. THERE WAS NO FREE OIL IN THESE AREAS, AND THE ROAD WAS NOT SLIPPERY.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date OCT 08,2004

No. 20040276 – 11656
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31947 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (OZARK) L.L.C.
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident

/ 405 / / 09 / / 16 / /2004 /
hr. month day year

3. Location of accident
(If offshore, do not complete a through d See Part C.1)

a. Latitude: 35° 57' 08" Longitude: -96° 45' 01"
(If not available, see instructions for how to provide specific location)

b. CUSHING PAYNE
City and County or Parish

c. OK 74023
State and Zip Code

d. Mile post/valve station ● or Survey Station no. ○
(whichever gives more accurate location)

0

4. Telephone report

/ 735227 / / 09 / / 16 / / 2004 /
NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 230,000
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 7,100
Value of operator property damage	$ 2,100,000
Other Costs	$ 0
(describe)	
Total Costs:	$ 2,337,100

6. Commodity Spilled ○ Yes ● No
(If Yes, complete Parts a through c where applicable)

a. Name of commodity spilled

b. Classification of commodity spilled:
- ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
- ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
- ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
- ○ Crude oil

c. Estimated amount of commodity involved :
- ○ **Barrels**
- ○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled :
Recovered:

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

- ○ **Corrosion**
- ○ **Natural Forces**
- ○ **Excavation Damage**
- ○ **Other Ouside Force Damage**
- ○ **Materal and/or Weld Failures**
- ○ **Equipment**
- ○ **Incorrect Operation**
- ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature

(type or print) Name and Title

Date

Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID TANK 17
   b. Accident on Federal land other than Outer Continental Shelf O Yes ● No
   c. Is pipeline interstate? ● Yes O No

Offshore: O Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ● Above Ground Storage Tank
   O Cavern or other below ground storage facility
   O Pump/meter station; terminal/tank farm piping and equipment, including sumps
   O Other Specify: _____

   O Onshore **pipeline**, including valve sites
   O Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   O Body of Pipe O Pipe Seam O Scraper Trap
   O Pump O Sump O Joint
   O Component O Valve O Metering Facility
   O Repair Sleeve O Welded Fitting O Bolted Fitting
   O Girth Weld
   O Other *(specify)* _____

   Year the component that failed was installed: / _____ /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: _____ *PSIG*
   b. MOP at time of accident: _____ *PSIG*
   c. Did an overpressurization occur relating to the accident?
   O Yes O No

a. Type of leak or rupture
   O Leak: O Pinhole O Connection Failure *(complete sec. H5)*
   O Puncture, diameter *(inches)* _____
   O Rupture: O Circumferential - Separation
   O Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   O N/A
   O Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? O Yes O No
f. Had there been an in-line inspection device run at the point of failure? O Yes O No O Don't Know
   O Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   O In open ditch
   O Under pavement O Above ground
   O Underground O Under water
   O Inside/under building ● Other TANK
2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? O Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ● Yes O No d. Explosion O Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
O Precautionary by company
O Evacuation required or initiated by public official
f. Elapsed time until area was made safe:
/ 0 / hr. / 10 / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic O Yes ● No
Bird O Yes ● No
Terrestrial O Yes ● No
b. Soil Contamination O Yes ● No
If Yes, estimated number of cubic yards: _____
c. Long term impact assessment performed: O Yes ● No
d. Anticipated remediation O Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: O Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater O No O Yes
Surface O No O Yes
Groundwater O No O Yes
Drinking water O No O Yes *(If Yes, check below.)*
O Private well O Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes O No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days _____ hours _____

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: /_____/

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. ● Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
- O General Public
- O Government
- O Excavator other than Operator/subcontractor

b. Type:
- O Road Work
- O Pipeline
- O Water
- O Electric
- O Sewer
- O Phone/Cable
- O Landowner-not farming related
- O Farming
- O Raildroad
- O Other liquid or gas transmission pipeline-operator or their contractor
- O Nautical Operations
- O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact /___/

e. Did operator get prior notification of excavation activity?
O Yes; Date received: /___/ mo. /___/ day /___/ yr. O No

Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: O Flags O Stakes O Paint
- ii. Permanent markings: O Yes O No
- iii. Marks were (check one): O Accurate O Not Accurate
- iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

TANK 17 WAS STRUCK BY LIGHTNING AT APPROXIMATELY 04:05 MST, WHICH IGNITED A SEAL FIRE. THE CUSHING FIRE DEPARTMENT RESPONDED AND ATTEMPTED TO EXTINGUISH THE FIRE, BUT WAS UNSUCCESSFUL. ADDITIONAL FOAM, EQUIPMENT AND EXPERTISE WAS BROUGHT IN AND THE FIRE WAS EXTINGUISHED AT APPROXIMATELY 18:20 MST. NO OIL WAS RELEASED TO THE GROUND. THERE WAS NO THREAT TO THE PUBLIC.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date OCT 26,2004

No. 20040298 – 11657
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31947 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (OZARK) L.L.C.
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 900 / / 09 / / 27 / /2004 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 35° 56' 26" Longitude: -96° 44' 26"
   (If not available, see instructions for how to provide specific location)
   b. CUSHING LINCOLN
   City and County or Parish
   c. OK 74023
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   0

4. Telephone report
   / 736556 / / 09 / / 27 / / 2004 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 5
Value of operator property damage	$ 0
Other Costs	$ 100,000
(describe) TANK REPAIR	
Total Costs:	$ 100,005

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 1
Recovered: 1

CAUSES FOR SMALL SPILLS ONLY ***(5 gallons to under 5 barrels) :*** **(For large spills [5 barrels or greater] see Part H)**

● **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **CENTRAL TERM. TANK 3357**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ● Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ● Other *(specify)* **TANK FLOOR**

Year the component that failed was installed: / **1947** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: _____ *PSIG*
   b. MOP at time of accident: _____ *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ○ Above ground
   ○ Underground ○ Under water
   ○ Inside/under building ● Other **STORAGE TANK**

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 0 / hr. / 0 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 1
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ○ Yes ● No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. ● Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- ● Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- ● Other **INSIDE TANK**

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- ● Other **NOT YET INSPECTED**

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No ● Yes, Year Protection Started: / 1947 /

e. Was pipe previously damaged in the area of corrosion?
● No O Yes => Estimated time prior to accident: / / years / / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group
      O General Public O Government O Excavator other than Operator/subcontractor
   b. Type:
      O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      O Landowner-not farming related O Farming O Raildroad
      O Other liquid or gas transmission pipeline-operator or their contractor
      O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / /
   e. Did operator get prior notification of excavation activity?
      O Yes; Date received: / / mo. / / day / / yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one): O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: / _____ / yr. / _____ / mo. / _____ / day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: / _____ / hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

DURING A ROUTINE MONTHLY TANK INSPECTION, A VERY SMALL AREA OF OILY SOIL WAS NOTICED AT THE BASE OF TANK 3357. UPON FURTHER INVESTIGATION, THERE APPEARED TO BE A LEAK IN THE FLOOR OF THE TANK. IT HAS BEEN TAKEN OUT OF SERVICE AND LOCKED OUT. CONTRACTORS HAVE BEEN SCHEDULED TO GAS-FREE AND CLEAN THE TANK. ONCE THIS HAS BEEN COMPLETED, REPAIR ASSESSMENTS WILL BE MADE.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date NOV 12,2004

No. 20040325 – 11658
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31947 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (OZARK) L.L.C.
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 609 / / 10 / / 14 / /2004 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 35° 57' 08" Longitude: -96° 45' 01"
   (If not available, see instructions for how to provide specific location)
   b. CUSHING PAYNE
   City and County or Parish
   c. OK 74023
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   0

4. Telephone report
   / 738416 / / 10 / / 14 / / 2004 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 30,000
Other Costs	$ 8,000
(describe) REPAIR COST	
Total Costs:	$ 38,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 90
Recovered: 90

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID CUSHING TERMINAL
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area ____ Block # ____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA ____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: ____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ● Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* ____
   Year the component that failed was installed: / 1949 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 35 *PSIG*
   b. MOP at time of accident: 40 *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* ____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* ____
   Propagation Length, total, both sides *(feet)* ____
   ○ N/A
   ○ Other ____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated ____ ft
d. Distance between valves ____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: ____
   ☐ Low Resolution Magnetic Flux tool Year run: ____
   ☐ UT tool Year run: ____
   ☐ Geometry tool Year run: ____
   ☐ Caliper tool Year run: ____
   ☐ Crack tool Year run: ____
   ☐ Hard Spot tool Year run: ____
   ☐ Other tool Year run: ____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 24 / in.
2. Wall thickness .38 / in.
3. Specification 5L SMYS / 24000 /
4. Seam type ____
5. valve type ____
6. *Manufactured by* ____ *in year* / /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ Under pavement ○ In open ditch
   ● Underground ○ Above ground
   ○ Inside/under building ○ Under water
   ○ Other ____
2. *Depth of cover:* 48 *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? ____ days ____ hours ____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 0 / hr. / 10 / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 120
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water 60 barrels
Ocean/Seawater ● No ○ Yes
Surface ○ No ● Yes
Groundwater ● No ○ Yes
Drinking water ● No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ○ Yes ● No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ○ Other (specify) _____
3. Estimated leak duration days 0 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ● Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: ○ Bare ● Coated

b. Visual Examination: ● Localized Pitting ○ General Corrosion ○ Other _____

c. Cause of Corrosion: ○ Galvanic ○ Atmospheric ○ Stray Current ○ Microbiological ○ Cathodic Protection Disrupted ○ Stress Corrosion Cracking ○ Selective Seam Corrosion ● Other **SLUDGE ON BOTTOM OF STRAINER**

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? ○ No ● Yes, Year Protection Started: / 1949 /

e. Was pipe previously damaged in the area of corrosion? ● No ○ Yes => Estimated time prior to accident: / / years / / months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group: ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type: ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable ○ Landowner-not farming related ○ Farming ○ Raildroad ○ Other liquid or gas transmission pipeline-operator or their contractor ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ○ No If Yes, Date of last contact / /
   e. Did operator get prior notification of excavation activity?
      ○ Yes; Date received: / / mo. / / day / / yr. ○ No
      Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: ○ Flags ○ Stakes ○ Paint
      ii. Permanent markings: ○ Yes ○ No
      iii. Marks were (check one) : ○ Accurate ○ Not Accurate
      iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

A PARTIALLY BURIED STRAINER, ON THE SUCTION SIDE OF A CUSHING TERMINAL BOOSTER PUMP, DEVELOPED A LEAK BELOW GRADE. OIL SATURATED THE GRAVELLED AREA, RAN TO CATCH BASIN AND DOWN DRAINAGE DITCH TOWARD AN ON-SITE POND. ABSORBENT BOOM WAS STRUNG ACROSS WATER TO PREVENT FURTHER MIGRATION OF OIL. ALL PRODUCT WAS CONTAINED ON SITE AND VACUUM TRUCKS RECOVERED FREE PRODUCT. CONTAMINATED SOIL WAS EXCAVATED AND STOCKPILED. THE STRAINER WAS REMOVED AND STRAIGHT SPOOL WAS INSTALLED.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date NOV 16,2005

No. 20050336 – 11663
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31947 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (OZARK) LLC
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 618 / / 10 / / 21 / /2005 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 37° 48' 11" Longitude: -96° 55' 14"
   (If not available, see instructions for how to provide specific location)
   b. EL DORADO BUTLER
   City and County or Parish
   c. KS 67042
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   0

4. Telephone report
   / 776984 / / 10 / / 21 / / 2005 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 650
Value of operator property damage	$ 0
Other Costs	$ 24,326
(describe) CLEANUP	
Total Costs:	$ 24,976

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. **Estimated amount of commodity involved :**
   ● **Barrels**
   ○ **Gallons (check only if spill is less than one barrel)**
   Amounts :
   Spilled : 2,350
   Recovered: 2,340

CAUSES FOR SMALL SPILLS ONLY ***(5 gallons to under 5 barrels) :*** **(For large spills [5 barrels or greater] see Part H)**

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **TANK 4152**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / ____ / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ● Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ● Other *(specify)* **PIVOT PIN ON A MIXER**

   Year the component that failed was installed: / **1956** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: _____ *PSIG*
   b. MOP at time of accident: _____ *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / **0** / in.
2. Wall thickness _____ / in.
3. Specification **0** SMYS / **0** /
4. Seam type **0**
5. valve type **0**
6. *Manufactured by* **0** *in year* / **1956** /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ● Above ground
   ○ Underground
   ○ Under water
   ○ Inside/under building
   ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ **0** / hr. / **10** / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: **200**
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe => ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ● Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ● Other MIXER

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt => ○ Pipe ○ Fabrication ○ Other _____

18. ○ Fillet => ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ○ Pipe Seam => ○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
○ Construction Defect => ○ Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
● Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ○ Yes, complete d-g ● No

d. Date of test: / / yr. / / mo. / / day

e. Test medium: ○ Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / / hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / / alcohol test / /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

EL DORADO FIELD STAFF ARRIVED ON SITE OCTOBER 21, 2005 AND DISCOVERED TANK 4152 HAD A LEAK ON THE MIXER. ALTHOUGH THE RELEASE WAS INITIALLY ESTIMATED AT 200 BARRELS, ACTUAL VOLUME OUT WAS DETERMINED TO BE 2350 BARRELS, ALL CONTAINED IN THE DIKE AREA. THIS TANK IS LEASED TO NCRA AND THEY WERE PULLING OUT OF IT AT THE TIME OF THE RELEASE. JAYHAWK PIPELINE INCREASED THEIR RATE TO MAXIMUM IN AN EFFORT TO PULL DOWN THE LEVEL AS QUICKLY AS POSSIBLE. NCRA APPROVED THE GRAVITY FEED AS WELL TO THEIR LEASED TANK 4151. NCRA STAFF WERE ON SITE AND TWO VACUUM TRUCKS CLEANED UP THE FREE-STANDING OIL. FIRE AND POLICE WERE CONTACTED.

THE PIVOT PINS THAT HOLD THE MIXER TO THE TANK SHELL HAVE A POORLY DESIGNED KEEPER RING THAT ALLOWED THE KEEPER RING TO FALL OFF AND THE PIN TO VIBRATE OUT. WE HAVE SINCE BEEN MADE AWARE THAT THE MIXER MANUFACTURER HAS A RETROFIT TO PREVENT THE KEEPER RING FROM FALLING OFF THE PIN, AND WE HAVE ORDERED THE RETROFIT AND WILL BE INSTALLING IT AS SOON AS POSSIBLE.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date SEP 08,2006

No. 20060255 – 11664
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31947 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (OZARK) LLC
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 730 / / 08 / / 13 / /2006 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 37° 48' 10" Longitude: -96° 54' 56"
   (If not available, see instructions for how to provide specific location)
   b. EL DORADO BUTLER
   City and County or Parish
   c. KS 67042
   State and Zip Code
   d. Mile post/valve station ○ or Survey Station no. ●
   (whichever gives more accurate location)
   EL DORADO TERMINAL

4. Telephone report
   / 807670 / / 08 / / 13 / / 2006 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 140
Value of operator property damage	$ 0
Other Costs	$ 90,000
(describe) REPAIRS AND CLEANUP	
Total Costs:	$ 90,140

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled WEST TEXAS SOUR
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 140
Recovered: 138

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **EL DORADO TERMINAL**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ● Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____

   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ● Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

   Year the component that failed was installed: / **1950** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: **35** *PSIG*
   b. MOP at time of accident: **285** *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / **16** / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / **25000** /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ○ Above ground
   ● Underground ○ Under water
   ○ Inside/under building ○ Other _____

2. *Depth of cover:* **36** *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? **0** days **2** hours **30** minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ **0** / hr. / **15** / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: **300**
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ● Yes ○ No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water **115** barrels
Ocean/Seawater ● No ○ Yes
Surface ○ No ● Yes
Groundwater ● No ○ Yes
Drinking water ● No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ○ Yes ● No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ○ Other (specify) _____
3. Estimated leak duration days 0 hours 2

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ● Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: ○ Bare ● Coated

b. Visual Examination: ○ Localized Pitting ○ General Corrosion ● Other **MICROBIOLOGICAL**

c. Cause of Corrosion: ○ Galvanic ○ Atmospheric ○ Stray Current ● Microbiological ○ Cathodic Protection Disrupted ○ Stress Corrosion Cracking ○ Selective Seam Corrosion ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? ○ No ● Yes, Year Protection Started: / 1975 /

e. Was pipe previously damaged in the area of corrosion? ● No ○ Yes => Estimated time prior to accident: / / years / / months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group: ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type: ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable ○ Landowner-not farming related ○ Farming ○ Raildroad ○ Other liquid or gas transmission pipeline-operator or their contractor ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ○ No If Yes, Date of last contact / /
   e. Did operator get prior notification of excavation activity?
      ○ Yes; Date received: / / mo. / / day / / yr. ○ No
      Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: ○ Flags ○ Stakes ○ Paint
      ii. Permanent markings: ○ Yes ○ No
      iii. Marks were (check one) : ○ Accurate ○ Not Accurate
      iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: / / yr. / / mo. / / day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: / / hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: / / alcohol test / /

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

A RELEASE OF APPROXIMATLY 140 BARRELS OF CRUDE OIL WAS DISCOVERED AS A TECHNICIAN ARRIVED AT THE EL DORADO TERMINAL ON 8/13/06. THE SOURCE OF THE LEAK WAS BURIED TERMINAL PIPING NEAR TANK 4160. THE PRODUCT MIGRATED DOWN THE SITE DRAINAGE DITCH AND INTO A POND. IT IS ESTIMATED THAT THE OIL ON THE POND COVERED AN AREA 150' X 60'. ALL PRODUCT WAS CONTAINED WITHIN THE TERMINAL PROPERTY. THE PIPING WAS ISOLATED AND THERE WAS NO OPERATIONAL IMPACT TO THE INTERCONNECTING PIPELINES OR REFINERY. THE NRC AND KDHE WERE NOTIFIED. VACUUM TRUCKS PICKED UP FREE PRODUCT AND CONTRACTORS WERE DISPATCHED TO EXCAVATE AND REPAIR THE PIPING.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date SEP 27,2006

No. 20060280 – 11665
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31947 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (OZARK) L.L.C.
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1333 / / 08 / / 29 / /2006 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 35° 56' 26" Longitude: -96° 45' 01"
   (If not available, see instructions for how to provide specific location)
   b. CUSHING LINCOLN
   City and County or Parish
   c. OK 74023
   State and Zip Code
   d. Mile post/valve station ○ or Survey Station no. ○
   (whichever gives more accurate location)

4. Telephone report
   / 809614 / / 08 / / 29 / / 2006 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 35
Value of operator property damage	$ 0
Other Costs	$ 150,000
(describe) REPAIR	
Total Costs:	$ 150,035

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled WTI DOMESTIC SWEET TYPE CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. **Estimated amount of commodity involved :**
   ○ **Barrels**
   ● **Gallons (check only if spill is less than one barrel)**
   Amounts :
   Spilled : 1
   Recovered: 1

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

● **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID TANK 3010
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ● Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms

*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ● Other *(specify)* TANK FLOOR

Year the component that failed was installed: / 1978 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: _____ *PSIG*
   b. MOP at time of accident: _____ *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement ● Above ground
   ○ Underground ○ Under water
   ○ Inside/under building ○ Other _____
2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official
f. Elapsed time until area was made safe:
/ 0 / hr. / 10 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ○ Yes ● No
   If Yes, estimated number of cubic yards: _____
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ○ Yes ● No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 2 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. ● Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- ● Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- ● Other **TOPSIDE CORROSION**

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- ● Other **GENERAL CORROSION DUE TO SUBMERGED SURFACE**

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No ● Yes, Year Protection Started: / 1978 /

e. Was pipe previously damaged in the area of corrosion?
● No O Yes => Estimated time prior to accident: / / years / / months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*
   a. Excavator group: O General Public O Government O Excavator other than Operator/subcontractor
   b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
      O Landowner-not farming related O Farming O Raildroad
      O Other liquid or gas transmission pipeline-operator or their contractor
      O Nautical Operations O Other _____
   c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / /
   e. Did operator get prior notification of excavation activity?
      O Yes; Date received: / / mo. / / day / / yr. O No
      Notification received from: O One Call System O Excavator O Contractor O Landowner
   f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: O Flags O Stakes O Paint
      ii. Permanent markings: O Yes O No
      iii. Marks were (check one) : O Accurate O Not Accurate
      iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

DURING ROUTINE MONTHLY TANK INSPECTION, IT WAS DISCOVERED THAT TANK 3010 HAD A PINHOLE LEAK IN THE FLOOR. APPROXIMATELY ONE HALF GALLON OF SLUDGE WAS RECOVERED. 235,000 BBLS WERE TRANSFERRED OUT OF TANK 3010 AND IT WAS TAKEN OUT OF SERVICE. AN API 653 INSPECTION WILL BE PERFORMED AND APPROPRIATE REPAIRS MADE. IT IS ESTIMATED THIS TANK WILL BE OUT OF SERVICE FOR 4 TO 6 MONTHS.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAY 05,2008

No. 20080148 -- 11510
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31947 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator ENBRIDGE PIPELINES (OZARK) L.L.C.
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 740 / / 04 / / 06 / /2008 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 37* 48' 10" Longitude: -96* 54' 50"
   (If not available, see instructions for how to provide specific location)
   b. EL DORADO BUTLER
   City and County or Parish
   c. KS 67042
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   TANK 4151

4. Telephone report
   / 867137 / / 04 / / 06 / / 2008 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 150,000
Other Costs	$ 326,127
(describe) CLEAN UP COSTS	
Total Costs:	$ 476,127

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled MARS
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 550
Recovered: 550

CAUSES FOR SMALL SPILLS ONLY ***(5 gallons to under 5 barrels) :*** **(For large spills [5 barrels or greater] see Part H)**

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

THERESA PICTON
(type or print) Preparer's Name and Title

(715) 394-1468
Area Code and Telephone Number

THERESA.PICTON@ENBRIDGE.COM
Preparer's E-mail Address

(832) 325-5477
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID **TANK 4151**
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☐ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ● Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ○ Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ● Other *(specify)* **TANK FLOOR**

   Year the component that failed was installed: / **1948** /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: **20** *PSIG*
   b. MOP at time of accident: **20** *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ○ Rupture: ○ Circumferential - Separation
   ○ Longitudinal - Tear/Crack, length *(inches)* _____
   Propagation Length, total, both sides *(feet)* _____
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☐ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated _____ ft
d. Distance between valves _____ ft
e. Is segment configured for internal inspection tools? ○ Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ○ Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
   ☐ High Resolution Magnetic Flux tool Year run: _____
   ☐ Low Resolution Magnetic Flux tool Year run: _____
   ☐ UT tool Year run: _____
   ☐ Geometry tool Year run: _____
   ☐ Caliper tool Year run: _____
   ☐ Crack tool Year run: _____
   ☐ Hard Spot tool Year run: _____
   ☐ Other tool Year run: _____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / _____ / in.
2. Wall thickness _____ / in.
3. Specification _____ SMYS / _____ /
4. Seam type _____
5. valve type _____
6. *Manufactured by* _____ *in year* / _____ /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ In open ditch
   ○ Under pavement
   ● Above ground
   ○ Underground
   ○ Under water
   ○ Inside/under building
   ○ Other _____

2. *Depth of cover:* _____ *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official
f. Elapsed time until area was made safe:
/ _____ / hr. / 30 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No
   Bird ○ Yes ● No
   Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: **2,000**
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ● Yes ○ No
   If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - O Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 1 hours _____

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. ● Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- ● Coated

b. Visual Examination
- ● Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- ● Other **WATER AND SEDIMENTS**

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No ● Yes, Year Protection Started: / **2003** /

e. Was pipe previously damaged in the area of corrosion?
● No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
O Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / /

e. Did operator get prior notification of excavation activity?
O Yes; Date received: /___/ mo. /___/ day /___/ yr. O No

Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
i. Temporary markings: O Flags O Stakes O Paint
ii. Permanent markings: O Yes O No
iii. Marks were (check one): O Accurate O Not Accurate
iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

THE TANK APPEARD TO HAVE A SMALL HOLE IN THE FLOOR. THE TANK WAS PUMPED DOWN, CLEANED OUT AND PREPARED FOR A 653 INTERNAL REPORT. OIL RELEASED FROM THE TANK WAS COLLECTED AND IMPACTED SOILS WERE REMOVED AND TREATED APPROPRIATELY. AN API-653 INSPECTION WAS COMPLETED, A NEW TANK FLOOR INSTALLED, AND THE TANK WAS RETURNED TO SERVICE. AFTER COMPLETION OF THE API 653 ON TANK 4151, IT WAS CONFIRMED THAT INTERNAL CORROSION WAS THE CAUSE OF THE LEAK ON TANK 4151. VISUAL EXAMINATION SHOWED LOCALIZED PITTING AND THE CAUE OF COROSION WAS AQUEOUS CORROSIVE ATTACH OF CARBON STEEL.

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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $500,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date SEP 22,2005

No. 20050271 -- 11675
(DOT Use Only)

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 Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 32080 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator CCPS TRANSPORTATION, LLC
   d. Operator street address 119 N 25TH STREET E
   e. Operator address SUPERIOR DOUGLAS WI 54880
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 845 / / 08 / / 24 / /2005 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 40° 12' 36 Longitude: -90° 27' 36
   (If not available, see instructions for how to provide specific location)
   b. RUSHVILLE SCHUYLER
   City and County or Parish
   c. IL 62681
   State and Zip Code
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   QF51.1

4. Telephone report
   / 770240 / / 08 / / 24 / / 2005 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 6,000
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 1,194,000
(describe) REPAIR AND CLEANUP	
Total Costs:	$ 1,200,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled CRUDE OIL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ● Crude oil

c. Estimated amount of commodity involved :
● **Barrels**
○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 107
Recovered: 71

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :*

(For large spills [5 barrels or greater] see Part H)

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

EMILY JURGENS
(type or print) Preparer's Name and Title

(715) 394-1547
Area Code and Telephone Number

EMILY.JURGENS@ENBRIDGE.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

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PART C - ORIGIN OF THE ACCIDENT *(Check all that apply)*

1. Additional location information
   a. Line segment name or ID 55
   b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
   c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State / _____ / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
   ☒ Operator's Property
   ☒ Pipeline Right of Way
   ☐ High Consequence Area (HCA)?
   Describe HCA _____

3. Part of system involved in accident
   ○ Above Ground Storage Tank
   ○ Cavern or other below ground storage facility
   ○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
   ○ Other Specify: _____
   ● Onshore **pipeline**, including valve sites
   ○ Offshore **pipeline**, including platforms
   *if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
   ○ Body of Pipe ● Pipe Seam ○ Scraper Trap
   ○ Pump ○ Sump ○ Joint
   ○ Component ○ Valve ○ Metering Facility
   ○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
   ○ Girth Weld
   ○ Other *(specify)* _____

Year the component that failed was installed: / 1952 /

5. Maximum operating pressure (MOP)
   a. Estimated pressure at point and time of accident: 1,250 *PSIG*
   b. MOP at time of accident: _____ *PSIG*
   c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
   ○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
   ○ Puncture, diameter *(inches)* _____
   ● Rupture: ○ Circumferential - Separation
   ● Longitudinal - Tear/Crack, length *(inches)* 4
   Propagation Length, total, both sides *(feet)* 6
   ○ N/A
   ○ Other _____

b. Type of block valve used for isolation of immediate section:
   Upstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
   Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated 9 ft
d. Distance between valves 9 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
   ○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*

☒	High Resolution Magnetic Flux tool	Year run: 2002
☐	Low Resolution Magnetic Flux tool	Year run:
☐	UT tool	Year run:
☐	Geometry tool	Year run:
☒	Caliper tool	Year run: 2002
☐	Crack tool	Year run:
☐	Hard Spot tool	Year run:
☐	Other tool	Year run:

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 22 / in.
2. Wall thickness .28 / in.
3. Specification 5L SMYS / 52000 /
4. Seam type DSAW
5. valve type _____
6. *Manufactured by* KAISER *in year* / 1952 /

PART E - ENVIRONMENT

1. *Area of accident*
   ○ Under pavement ○ In open ditch
   ● Underground ○ Above ground
   ○ Inside/under building ○ Under water
   ○ Other _____
2. *Depth of cover:* 60 *inches*

PART F - CONSEQUENCES

1. **Consequences** *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe: / 3 / hr. / 0 / min.

2. **Environmental Impact**
   a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
   b. Soil Contamination ● Yes ○ No
   If Yes, estimated number of cubic yards: 100
   c. Long term impact assessment performed: ○ Yes ● No
   d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water 107 barrels
Ocean/Seawater ● No ○ Yes
Surface ○ No ● Yes
Groundwater ● No ○ Yes
Drinking water ● No ○ Yes *(If Yes, check below.)* ○ Private well ○ Public water intake

If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

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PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one):
   - O CPM/SCADA-based system with leak detection
   - ● Static shut-in test or other pressure or leak test
   - O Local operating personnel, procedures or equipment
   - O Remote operating personnel, including controllers
   - O Air patrol or ground surveillance
   - O A third party
   - O Other (specify) _____
3. Estimated leak duration days 0 hours 12

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. O External Corrosion
2. O Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- O Bare
- O Coated

b. Visual Examination
- O Localized Pitting
- O General Corrosion
- O Other _____

c. Cause of Corrosion
- O Galvanic
- O Atmospheric
- O Stray Current
- O Microbiological
- O Cathodic Protection Disrupted
- O Stress Corrosion Cracking
- O Selective Seam Corrosion
- O Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
O No O Yes, Year Protection Started: /____/

e. Was pipe previously damaged in the area of corrosion?
O No O Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other _____
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other _____
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other _____
7. O High Winds

H3 - EXCAVATION DAMAGE

8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party *(complete a-f)*

a. Excavator group
- O General Public O Government O Excavator other than Operator/subcontractor

b. Type:
- O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
- O Landowner-not farming related O Farming O Raildroad
- O Other liquid or gas transmission pipeline-operator or their contractor
- O Nautical Operations O Other _____

c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact /___/

e. Did operator get prior notification of excavation activity?
O Yes; Date received: /___/ mo. /___/ day /___/ yr. O No

Notification received from: O One Call System O Excavator O Contractor O Landowner

f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: O Flags O Stakes O Paint
- ii. Permanent markings: O Yes O No
- iii. Marks were (check one): O Accurate O Not Accurate
- iv. Were marks made within required time? O Yes O No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. ● Pipe Seam =>O LF ERW ● DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
● Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes ● No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g ● No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

DURING A HYDROSTATIC TEST OF THE CCPS TRANSPORTATION, LLC (SPEARHEAD) PIPELINE SYSTEM, A RUPTURE OCCURED IN A CORN FIELD APPROXIMATELY 7 MILES NORTHEAST OF RUSH STATION NEAR RUSHVILLE, ILLINOIS. AN ESTIMATED 1500 BBLS OF TEST WATER WAS OUT WITH THE AMOUNT OF CRUDE OIL ENTRAINED IN THE WATER ESTIMATED TO BE 107 BARRELS. WATER MADE ITS WAY TO A DRAIN TILE AND ENTERED NEARBY SUGAR CREEK WHICH WAS REPORTED TO BE STAGNANT AT THE TIME OF THE RELEASE. ABSORBANT BOOM WAS PLACED DOWNSTREAM OF THE AREA. THE WATER COMING FROM THE TILE APPEARED TO BE CLEAN. SWAMP MATS WERE PLACED IN THE FIELD TO ENABLE CREWS TO GET TO THE SITE. ALL NECESSARY RESOURCES RESPONDED TO THE SITE TO ASSIST WITH CLEANUP AND REPAIR. REPAIR CONSISTED OF REPLACING 44.7 FEET OF PIPE ON AUGUST 25, 2005. TOM MCMASTER OF THE CENTRAL REGION OPS WAS ON SITE THE DAY OF THE RELEASE.

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