NOTICE: This report is required by 49 USC 60122.	CFR Part 195. Failure to report can result in	a civil penalty as provided in 49	OMB NO: 2137-0047	
			EXPIRATION DATE: 3/31/2024	
U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration	ACCIDENT REPORT – HAZA CARBON DIOXIDE PIPE		Report Date No (DOT Use Only)	
comply with a collection of informa a current valid OMB Control Numb of information is estimated to be a and completing and reviewing the regarding this burden estimate or a	or sponsor, and a person is not required tion subject to the requirements of the P per. The OMB Control Number for this in pproximately 12 hours per response, inc e collection of information. All response any other aspect of this collection of infor ISA, Office of Pipeline Safety (PHP-30) 1	aperwork Reduction Act unles formation collection is 2137-00 luding the time for reviewing ir as to this collection of informa mation, including suggestions	s that collection of information displays 047. Public reporting for this collection astructions, gathering the data needed, tion are mandatory. Send comments for reducing this burden to: Information	
	he separate instructions for completing the dominant of the dominant of the dominant of the dominant of the sec			
Page at <u>https://www.phmsa.dot.go</u>			MISA I Ipenne Salety Community Web	
PART A – KEY REPORT INFORMATI	ON Report Type: (sele	ct all that apply)	□ Supplemental □ Final	
	dentification Number (OPID): / /	<u>       </u>		
A2. Name of Operator: <u>auto-populated</u>	d based on OPID			
A3. Address of Operator:				
A3a. <u>auto-populated based on OPID</u> (Street Address)				
A3b. <u>auto-populated based on OPID</u> (City)				
A3c. State: <u>auto-populated based on C</u>	<u>DPID</u>			
A3d. Zip Code: auto-populated based				
A4. Earliest local time (24-hr clock) and	d date an accident reporting criteria was	met:		
//////////////////////////////////////	<u>/ / / / / /</u> Day Year			
A4a. Time Zone for local time (select o	only one) O Alaska O Eastern O Ce	ntral O Hawaii-Aleutian O	Mountain O Pacific	
A4b. Daylight Saving in effect? O Ye	es O No			
A5. Location of Accident: Latitude: / / . / / . Longitude: - / / / . /	<u>       </u> 			
	one, based on predominant volume rele	ased)		
Crude Oil				
O Gasoline (non-Ethanol) O Mixture of Refined Products	duct (non-HVL) which is a Liquid at Ambi O Diesel, Fuel Oil, Kerosene, J s (transmix or other mixture)			
<ul> <li>HVL or Other Flammable or Toxic Fluid which is a Gas at Ambient Conditions</li> <li>O Anhydrous Ammonia</li> <li>O LPG (Liquefied Petroleum Gas) / NGL (Natural Gas Liquid)</li> <li>O Other HVL I Name:</li></ul>				
□ CO₂ (Carbon Dioxide)				
Biofuel / Alternative Fuel (inclue O Fuel Grade Ethanol	ding ethanol blends)	O Ethanol Blend 🖨 % Etha	anol: / / /	
	2, B20, B100): B///	O Other ⊫> Name:		
A7. Estimated volume of commodity re	·			
A8. Estimated volume of intentional an	•			
A9. Estimated volume of commodity re		<u>          ,       </u>	/./ / / Barrels	

A10. Were there fatalities? O Yes O No		A11. Were th	ere injuries requiring inpatient h	ospitalization? O Yes O No
If Yes, specify the number in each catego	ory:	lf Yes, sp	ecify the number in each cate	gory:
A10a. Operator employees	<u>          </u>	A11a.	Operator employees	<u>         </u>
A10b. Contractor employees working for the Operator	<u>          </u>		Contractor employees working for the Operator	<u>/ / / / /</u>
A10c. Non-Operator emergency responders	<u>          </u>		Non-Operator emergency responders	<u>/ / / / /</u>
A10d. Workers working on the right-of-way, but NOT associated with this Operator	<u>             </u>		Workers working on the right-of-way, but NOT associated with this Operator	<u>          </u>
A10e. General public	<u>          </u>	A11e.	General public	<u>          </u>
A10f. Total fatalities (sum of above)	<u>calculated</u>	A11f.	Total injuries (sum of above)	<u>calculated</u>
A12. What was the Operator's initial indication	on of the Failure? (sele	ect only one)		
<ul> <li>SCADA-based information (such as a</li> <li>Static Shut-in Test or Other Pressure</li> <li>Controller</li> <li>Air Patrol</li> <li>Notification from Public</li> <li>Notification from Third Party that cause</li> <li>A12a. If "Controller", "Local Operating Partial Controller", "Local Controler", "Local Controller", "Local Controller", "Local Controlle</li></ul>	or Leak Test	Local Operating Personne Ground Patrol by Operato Notification from Emergen Other tractors", "Air Patrol", or "O	el, including contractors r or its contractor icy Responder	
O Operator employee	O Contractor work	ing for the Operator		
A13. Local time Operator identified failure		<u>/ / / / /</u> Hour	<u>/ / / / / /</u> Month Day Y	<u>/ /</u> /ear
<ul> <li>A14. Part of system involved in Accident: (see Constant)</li> <li>Conshore Breakout Tank or Storage With Constant Consta</li></ul>	Vessel, Including Attach nent and Piping ociated with Belowgrour nent and Piping tes ocluding Platform-moun	nd Storage		
A15. Auto-populated based on A14 Was the O Yes (Complete Questions B3-B12)				
<ul> <li>A16. Operational Status at time Operator ide</li> <li>O Post-Construction Commissioning</li> <li>O Post-Maintenance/Repair</li> <li>O Routine Start-Up</li> <li>O Routine Shutdown</li> <li>O Normal Operation, include pauses betw</li> <li>O Idle</li> </ul>				
A17. If Operational Status = Routine Start-Up O Yes O No r Explain:	o or Normal Operation,	was the pipeline/facility sh	nut down due to the Accident?	
If Yes, complete Questions A17.a and A	17.b: <i>(use local time, 2</i>	4-hr clock)		
A17a. Local time and date of shutdown		,	<u>/ / / / / / /</u> n Day Year	
A17b. Local time pipeline/facility restarted	ed /	<u>/ / / /</u> / / Hour Month	<u> </u>	O Still shut down*

If A12 = Notification from Emergency Responder, skip A18a. through A18c.

A18a. Did the operator communicate with Local, State, or Federal Emergency Responders about the accident? O Yes O No If No, skip A18b. and A18c.

A18b. Which party initiated communication about the accident? O Operator O Local/State/Federal Emergency Responder

Also. Which party initiated communication dood its dood

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A20. Local time of confirmed discovery / / / / / / / / / / / / / / / / / / /
A21a. Local time (24- <i>hr clock)</i> and date of initial operator report to the National Response Center: <u>/ / / / / / / / / / / / / / / / / / / </u>
A21b. Initial Operator National Response Center Report Number OR $$ O NRC Notification Not Required OR $$ O NRC Notification Required But Not Made
A21c. Additional NRC Report numbers submitted by the operator:
A22. Did the commodity ignite? O Yes O No If Yes, answer A22.a through d:
A22a. Local time of ignition / / / / / / / / / / / / / / / / / / /
A22b. How was the fire extinguished? O Operator/Contractor O Local/State/Federal Emergency Responder O Allowed to burn out O Other, specify:
A22c. Estimated volume of commodity consumed by fire (barrels): (must be less than or equal to A7)
A22d. Did the commodity explode? O Yes O No
If A14. is "Onshore Pipeline, Including Valve Sites" OR "Offshore Pipeline, Including Riser and Riser Bend", answer A23a through f:
A23a. Initial action taken to control flow upstream of failure location O Valve Closure O Operational Control - mandatory text field
If Valve Closure, answer A23b and c:
A23b. Local time of valve closure / / / / / / / / / / / / / / / / / / /
A23c. Type of upstream valve used to initially isolate release source: O Manual O Automatic O Remotely Controlled
A23d. Initial action taken to control flow downstream of failure location O Valve Closure O Operational Control - mandatory text field
If Valve Closure, answer A23.e and f:
A23e. Local time of valve closure / / / / / / / / / / / / / / / / / / /
Hour Month Day Year A23f. Type of downstream valve used to initially isolate release source: O Manual O Automatic O Remotely Controlled O Check Valve
If A6 = Crude Oil, Refined and/or Petroleum Product (non-HVL) which is a Liquid at Ambient Conditions, or Biofuel / Alternative Fuel (including ethanol blends) AND A15. is Onshore, answer questions A24a and c:
A24a. Did the operator notify a "qualified individual" in the Onshore Oil Spill Response Plan? O Yes O No
If Yes, answer A24b.
A24b. Local time the "qualified individual" was notified. <u>/ / / / / / / / / / / / / / / / / / /</u>
A24c. Did the operator activate an Oil Spill Removal Organization (OSRO)? O Yes O No
If Yes, answer A24d and e:
A24d. Local time operator activated OSRO / / / / / / / / / / / / / / / / / / /
A24e. Local time OSRO arrived on site ////////////////////////////////////
A25. Number of general public evacuated: / / / / / / / /

# PART B – ADDITIONAL LOCATION INFORMATION

B1. Pipeline/Facility name: _	
B2. Segment name/ID:	
If Onshore:	
B3. State: <u>/ / /</u>	
B4. Zip Code: / / /	<u>      -            </u>
B5	B6 County or Parish
City	
B7. Operator-designated loc	
	Survey Station No. <i>(specify in shaded area below)</i>
B8 //_/_/_/_/	
B9. Was this onshore Accide	ent on Federal land? O Yes O No
B10. Location of Accident: (	'select only one)
_ '	Operator-controlled property
B11. Area of Accident (as fou	und): (select only one)
☐ Tank, including atta ☐ Underground ⇔ S	ached appurtenances Specify: O Under soil O Under a building O Under pavement O Exposed due to excavation O Exposed due to loss of cover O In underground enclosed space (e.g., vault) O Other
B11a. D	epth-of-Cover (in): //,/_/_/_/OR_O_Unknown
□ Aboveground ⇒	
с ,	O In or spanning an open ditch O Inside other enclosed space O Other Specify: O Soil/air interface O Wall sleeve O Pipe support or other close contact area O Other
☐ Railroad crossing ☐ Road crossing ( ☐ Water crossing Specify: Name of	Specify:       O Cased       O Uncased         g (select all that apply)       O Cased       O Uncased         select all that apply)       O Cased       O Uncased         O Cased       O Uncased       O Bored/drilled         O Cased       O Uncased       O Bored/drilled         of vater, if commonly known:
	OBelow water, pipe on or above bottom
Is this wa	ater crossing 100 feet or more in length from high water mark to high water mark? O Yes O No
If Offshore:	
B13. Approximate water dep	oth (ft.) at the point of the Accident: ////////////////////////////////////
B14. Origin of Accident:	☐ In State waters Specify: State: Area: Block/Tract #: / _ / _ / _ / Nearest County/Parish:
	Image: Only one of the Outer Continental Shelf (OCS) (select only one)       OOCS – Alaska       OOCS – Atlantic
	O OCS-Gulf of Mexico O OCS – Pacific Specify: Area: Block/Tract #: //_/
<ul><li>Below water, pi</li><li>Below water, pi</li><li>Splash Zone of</li></ul>	/Marsh crossing or shore approach pe buried or jetted below seabed pe on or above seabed

PART C – ADDITIONAL FACILITY INFORMATION	
C1. Is the pipeline or facility:	
C2. reserved	
C3. Item involved in Accident: <i>(select only one)</i> □ Pipe ⇔ Specify: O Pipe Body O Pipe Seam	
If Pipe Body: Was this a puddle/spot weld? O Yes O No C3a. Nominal Pipe Size: / / // / C3b Wall thickness (in): / // / / / C3c. SMYS (Specified Minimum Yield Strength) of pipe (psi): / / / / / / / / C3d. Pipe specification: OR O Unknown	
C3e. Pipe Seam Specify: O ERW - High Frequency O Single SAW O Flash Welded O ERW - Low Frequency O DSAW O Continuous Welded O ERW – Unknown Frequency O Furnace Butt Welded O Spiral Welded O Lap Welded O Seamless O Other, describe:	
C3f. Pipe manufacturer: OR O Unknown	
C3g Pipeline coating type at point of Accident ⇒ Specify: O Fusion Bonded Epoxy (FBE) O Coal Tar O Asphalt O Polyolefin O Extruded Polyethylene O Epoxy other than FBE O Cold Applied Tape O Paint O Composite O None O Other, describe:	
C3h. Coating field applied? O Yes O No O Unknown	
□ Weld, including heat-affected zone 🖒 Specify: O Pipe Girth Weld O Other Butt Weld O Fillet Weld	
If Pipe Girth Weld is selected, complete items C3a through h above. Are any of the C3b though h values different on either side of the girth v O Yes O No	/eld?
If Yes, enter the different value(s) below: C3i. Wall thickness (in): / // / / / C3j. SMYS (Specified Minimum Yield Strength) of pipe (psi): / / / / / / / C3k. Pipe specification: OR O Unknown C3l. Pipe Seam ⇒ Specify: O ERW - High Frequency O Single SAW O Flash Welded O ERW - Low Frequency O DSAW O Continuous Welded O ERW - Unknown Frequency O Furnace Butt Welded O Spiral Welded O Lap Welded O Seamless	
O Other, describe: C3m. Pipe manufacturer: OR O Unknown	
C3m. Pipe manufacturer: OR O Unknown C3n. Pipeline coating type at point of Accident ⇒ Specify: O Fusion Bonded Epoxy (FBE) O Coal Tar O Asphalt O Polyolefin O Extruded Polyethylene O Epoxy other than FBE O Cold Applied Tape O Paint O Composite O None O Other, describe: C3o. Coating field applied? O Yes O No O Unknown	
□ Valve O Mainline  → Specify: O Butterfly O Check O Gate O Plug O Ball O Globe O Other, describe:	
C3p. Mainline valve manufacturer: OR O Unknown O Relief Valve – including thermal and pressure. Report tank relief valves under the Tank/Vessel, Relief Valve O Auxiliary or Other Valve – report auxiliary valves on tanks under Tank/Vessel, Appurtenance	
Pump, including auxiliary piping, connections, and equipment, but excluding product drain lines and tubing.	
C3q. Type of pump  Positive displacement Centrifugal Gear Other (specify): C3r. Type of service Mainline Injection Truck rack (if on terminal side of truck rack canopy) Other (specify): Other (specify):	
<ul> <li>Meter/Prover, including auxiliary piping, connections, and equipment, but excluding product drain lines and tubing.</li> <li>Scraper/Pig Trap, including auxiliary piping, connections, and equipment, but excluding product drain lines and tubing.</li> <li>Sump, including auxiliary piping, connections, and equipment, but excluding product drain lines and tubing.</li> <li>Filter, Strainer, Separator, including auxiliary piping, connections, and equipment, but excluding product drain lines and tubing.</li> </ul>	

		Repair Sleeve or Clamp Tapping Equipment Tap Fitting (stopple, thread-o-ring, weld-o-let, etc.) Flange Assembly, including Gaskets
	_	Relief Lines and Relief Equipment
		Drain Lines Tubing, including Fittings
		C3s. Tubing material Stainless steel Carbon steel Copper Other
		C3t. Type of tubing <ul> <li>Rigid</li> <li>Flexible</li> </ul>
		Instrumentation, including Programmable Logic Controllers and Controls Tank/Vessel  → C3u. Specify: O Single Bottom System O Double Bottom System O Tank Shell O Chime O Roof/Roof Seal O Roof Drain System O Mixer O Pressure Vessel Head or Wall O Appurtenance O Relief Valve O Other, describe: C3v. Tank Type O Atmospheric O Pressurized
If C	3v. =	Pressurized: C3v1. Tank Maximum Operating Pressure C3v2. What is the set point of the primary pressure relief device on the tank? C3v3. Did the thermal or pressure relief valve activate? O Yes O No C3v4. Was the MOP of the tank exceeded? O Yes O No
If C	3v =	Atmospheric: C3v5. Safe-Fill-Level (in feet) at the time of the accident? C3v6. Was the SafeFill-Level exceeded? O Yes O No C3v7. Year of most recent API Std 653 Out-of-Service Inspection / / / / / / OR O None C3v8. API Std 653 In-Service Inspection / / / / / OR O No In-Service Inspection completed
		Other mandatory text field
C4.	Yea	ar item involved in Accident was installed: /_/_/_//_ORO Unknown
		ear item involved in Accident was manufactured: <u>/ / / / /</u> OR O Unknown
C5.		terial involved in Accident: ( <i>select only one)</i> Carbon Steel Material other than Carbon Steel 🖒 Specify:
C6.		be of Accident involved: <i>(select only one)</i> Mechanical Puncture  → Approx. size: /_/_/_/in. (axial) by /_/_/_/in. (circumferential) Leak  → Select Type: O Pinhole O Crack O Connection Failure O Seal or Packing O Other Rupture  → Select Orientation: O Circumferential O Longitudinal O Other Approx. size: /_/_/_/./_/ in. (widest opening) by /_/_/_//in. (length circumferentially or axially) Overfill or Overflow
		Other 🖒 Describe:
PAI	RT D	- ADDITIONAL CONSEQUENCE INFORMATION
D1.		dlife impact: O Yes O No
	D1	a If Yes, specify all that apply: □ Fish/aquatic □ Birds □ Terrestrial
		contamination: O Yes O No
	Anti	g term impact assessment performed or planned: O Yes O No cipated remediation: O Yes O No (not needed) a. If Yes, specify all that apply: □ Surface water □ Groundwater □ Soil □ Vegetation □ Wildlife
D5.	Wat	ter contamination: O Yes $\Rightarrow$ (Complete 5a – 5c below) O No

D5a. Specify all that apply: Ocean/Seawater □ Surface Groundwater □ Drinking water ⇒ (Select one or both) ○ Private Well ○ Public Water Intake D5b. Estimated amount released in or reaching water: / / / / / / / / / / / / Barrels D5c. Name of body of water, if commonly known: D6. 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? O Yes O No O Yes O No D7. Did the released commodity reach or occur in one or more High Consequence Area (HCA)? D7a. 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? O Yes O No □ High Population Area Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program? O Yes O No □ Other Populated Area Was this HCA identified in the "could affect" determination for this Accident site in the Operator's Integrity Management Program? O Yes O No 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? O Yes O No 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? O Yes O No D8. Estimated Property Damage: D8a. Estimated cost of public and non-Operator private property damage \$/ / / /,/ 1 1 1.1 1 \$/ / / / / / / / / / D8b. Estimated cost of commodity lost D8c. Estimated cost of Operator's property damage & repairs 1,1 1,1 \$/ 1 1 1 1 \$/ / /,/ / /,/ / / D8d. Estimated cost of emergency response 1,1 1 1 1 \$ / / /,/ D8e. Estimated cost of environmental remediation 1 1 D8f. Estimated other costs 1 1 11 1 11 \$/ Describe D8g. Total estimated property damage (sum of above) \$ calculated Injured Persons not included in A11 The number of persons injured, admitted to a hospital, and remaining in the hospital for at least one overnight are reported in A11. If a person is included in A11, do not include them in D9. D9. Estimated number of persons with injuries requiring treatment in a medical facility but not requiring overnight in-patient hospitalization: If a person is included in D9, do not include them in D10. D10. Estimated number of persons with injuries requiring treatment by EMTs at the site of accident:

#### **Buildings Affected**

D11. Number of residential buildings affected (evacuated or required repair):

D12. Number of business buildings affected (evacuated or required repair):

#### PART E - ADDITIONAL OPERATING INFORMATION

E1. Estimated pressure at the point and time of the Accident (psig):				/,/	/	/	/
If C3. Is Tank/Vessel and C3v. is Atmospheric, do not answer E2.	and E3.						
E2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig) :			/	1,1	1	/	1
E2a. Limiting factor establishing MOP (select only one):							
O Internal Design Pressure	§195.406(a)(1)						
O Component Design Pressure §195.406(a)(2)							
O SubPart E Pressure Test §195.406(a)(3)							
O Excepted Component Pressure Test §195.406(a)(4)							
O Four Hour Test or Operation §195.406(a)(5)							
O Other; describe:							

E2b. Date MOP established

E2c. Was the MOP established in conjunction with a reversal of flow direction? O Yes O No O Bi-Directional

	If E2c = `	Yes, E2d. What	is the date of the mos	t recent surge analysis p	performed at the	point of the A	Accident?
	<ul><li>Pressure d</li><li>Pressure e</li></ul>	id not exceed M0	OP out did not exceed 110	ng to the Accident: <i>(calcu</i> % of MOP	ulated)		
E4.	Was the syste	m or facility relat		erating under an establis	shed pressure re	estriction with	pressure limits below those normally
	ved by the MO	P?					
	-	omplete 4.a and					
	E4a. Did t	he pressure exce	eed this established pr	essure restriction?	O Yes	O No	
			striction mandated by		O PHMSA	O State	O Not mandated
lf A1	4. is "Onshore	Pipeline, Includi	ing Valve Sites" OR "C	offshore Pipeline, Includi	ng Riser and Ri	ser Bend", cor	mplete E5 through E7
E5.	Answer E5 on	ly when both A23	3a and A23d are Valve	e Closure			
	Length of se	egment initially is	olated between valves	s (ft): <u>/ / / /</u>			
E6.	Is the pipeline	configured to ac	commodate internal in	spection tools?			
		□ Yes					
		-		limit tool accommodation	n? (select all th	at apply)	
		0	- 5 11				
		0		ictions (i.e. unbarred tee			
		0	Extra thick pipe wal Other ➡> Describe	l (applicable only for mag	gnetic flux leaka	-	
_							
E7.	For this pipelir	_	rational factors which	significantly complicate	the execution of	an internal in	spection tool run?
		∐ No □ Yes ⊏> W	/hich operational facto	rs complicate execution	? (select all tha	t apply)	
		0		scale, wax, or other wal			
		0			I		
		0					
		0	Incompatible comm				
Eo	Eurotion of nir			•			
_		eline system: (segulated Transm		□ > 20% SMYS Re	gulated Gatheri	ng	
		egulated Transm		□ ≤ 20% SMYS Re	-	-	
	Was a Superv □ No	isory Control and	d Data Acquisition (SC	ADA)-based system in p	place on the pip	eline or facility	v involved in the Accident?
	□ Yes 🖒	E9a. Was it op	perating at the time of	the Accident?	O Yes	O No	
		E9b. Was it ful	lly functional at the tim	e of the Accident?	O Yes	O No	
		E9c. Did SCAI of the Accident		(such as alarm(s), alert(	s), event(s), and O Yes	l/or volume ca O No	alculations) assist with the initial indication
		E9d. Did SCAI discovery of the		(such as alarm(s), alert(	s), event(s), and O Yes	d/or volume ca O No	alculations) assist with the confirmed
	_	eak detection sy	rstem in place on the p	ipeline or facility involve	d in the Accider	nt?	
	∐ No □ Yes <b>⊏</b> >	E10a Wasito	operating at the time of	the Accident?	O Yes	O No	
	03 <b>_</b> /		ully functional at the til		O Yes		
							d/or volume calculations) assist with the
			,	<b>`</b>		. ,	'
		initial indication	n of the Accident?		O Yes O	No	
		E10d. Did CPM		m information (such as a	alarm(s), alert(s)		d/or volume calculations) assist with the

E11. 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? (select only one)

 $\Box$  No, the facility was not monitored by a controller(s) at the time of 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)

Yes, specify investigation result(s): (select all that apply)

O Investigation reviewed work schedule rotations, continuous hours of service (while working for the Operator) and other factors associated with fatigue

O 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*)

- O Investigation identified no control room issues
- O Investigation identified no controller issues
- O Investigation identified incorrect controller action or controller error
- O Investigation identified that fatigue may have affected the controller(s) involved or impacted the involved controller(s) response
- O Investigation identified incorrect procedures
- O Investigation identified incorrect control room equipment operation
- O Investigation identified maintenance activities that affected control room operations, procedures, and/or controller response
- O Investigation identified areas other than those above 
  Describe:

1

### PART F – DRUG & ALCOHOL TESTING INFORMATION

F1. 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?

O No	
------	--

- O Yes 🖒 F1a. Specify how many were tested: / /
  - F1b. Specify how many failed:
- F2. 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?

O No O Ye

Yes	₽	F2a.	Specify how many were tested:		1	/
		F2h	Specify how many failed	1	1	1

PART G – APPARENT CAUSE	Select only one box from PART G in the shaded column on the 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).
G1 - Corrosion Failure – *o	nly one sub-cause can be picked from shaded left-hand column
External Corrosion	Results of visual examination:     O Localized Pitting O General Corrosion     O Other
	<ol> <li>Type of corrosion: (select all that apply)</li> <li>O Galvanic</li> <li>O Atmospheric</li> <li>O Stray Current</li> <li>O Microbiological</li> <li>O Selective Seam</li> <li>O Other</li> </ol>
	2a. If 2 is Stray Current, specify O Alternating Current O Direct Current AND
	2b. Describe the stray current source:
	<ul> <li>3. The type(s) of corrosion selected in Question 2 is based on the following: (select all that apply)</li> <li>O Field examination</li> <li>O Determined by metallurgical analysis</li> <li>O Other</li> </ul>
	<ul> <li>4. Was the failed item buried or submerged?</li> <li>O Yes ⇒ 4a. Was failed item considered to be under cathodic protection at the time of the Accident?</li> <li>O Yes ⇒ Year protection started: / / / / /</li> <li>O No</li> </ul>
	4b. Was shielding, tenting, or disbonding of coating evident at the point of the Accident? O Yes O No
	<ul> <li>4c. Has one or more Cathodic Protection Survey been conducted at the point of the Accident? (select all that apply)</li> <li>O Yes, CP Annual Survey ⇒ Most recent year conducted: <a href="https://www.commune.com">/////www.com</a></li> </ul>
	O Yes, Close Interval Survey  → Most recent year conducted: / / / / / / / / / / / / / / O Yes, Other CP Survey  → Most recent year conducted: / / / / / / / / / / / / / / / / / / Describe other CP survey: O No
	O No 🚓 4d. Was the failed item externally coated or painted? O Yes O No
	5. Was there observable damage to the coating or paint in the vicinity of the corrosion? O Yes O No O N/A Bare/Ineffectively Coated Pipe
Internal Corrosion	6. Results of visual examination: O Localized Pitting O General Corrosion O Not cut open O Other
	<ul> <li>7. Cause of corrosion: (select all that apply)</li> <li>O Corrosive Commodity O Water drop-out/Acid O Microbiological O Erosion</li> <li>O Other</li> </ul>
	8. The cause(s) of corrosion selected in Question 7 is based on the following: <i>(select all that apply)</i> O Field examination O Determined by metallurgical analysis
	O Other 9. Location of corrosion: <i>(select all that apply)</i> O Low point in pipe O Elbow O Dead-Leg O Other
	10. Was the commodity treated with corrosion inhibitors or biocides? O Yes O No
	11. Was the interior coated or lined with protective coating? O Yes O No
	12. Were cleaning/dewatering pigs (or other operations) routinely utilized? O Not applicable - Not mainline pipe O Yes O No
	13. Were corrosion coupons routinely utilized? O Not applicable - Not mainline pipe O Yes O No

G2 - Natural Force Damag	<b>e</b> - *only one <b>sub-cause</b> can be picked from shaded left-hand column
Earth Movement, NOT due to Heavy Rains/Floods	1. Specify: O Earthquake O Subsidence O Landslide O Other
Heavy Rains/Floods	2. Specify: O Washout/Scouring O Flotation O Mudslide O Other
□ Lightning	3. Specify: O Direct hit O Secondary impact such as resulting nearby fires
Temperature	4. Specify: O Thermal Stress O Frost Heave O Frozen Components O Other
☐ High Winds	
Tree/Vegetation Root	
Snow/Ice impact or Accumulation	
Other Natural Force Damage	5. Describe:
Complete the following if any Natural Force Da	amage sub-cause is selected.
6. Were the natural forces causing the Accident	generated in conjunction with an extreme weather event? O Yes O No
6a. If Yes, specify: (select all that apply)	O Hurricane O Tropical Storm O Tornado O Other:
G3 – Excavation Damage	*only one <b>sub-cause</b> can be picked from shaded left-hand column
Excavation Damage by Operator (First Party)	
Excavation Damage by Operator's Contractor (Second Party)	
Excavation Damage by Third Party	
Previous Damage due to Excavatio Activity	n
Complete the following if Excavation Damage	by Third Party is selected as the sub-cause.
1. Did the Operator get prior notification of the e	xcavation activity? O Yes O No
1a. If Yes, Notification received from: (sele	ct all that apply) O One-Call System O Excavator O Contractor O Landowner
1b. Per the primary Accident Investigator re O Yes O No O Unknown	esults, did State law exempt the excavator from notifying the one-call center?
If yes, answer 1c through 1e.	
	xempt mpt and did not exceed the limits of the exemption mpt and exceeded the limits of the exemption
	Program questions if any Excavation Damage sub-cause is selected.
	nformation to CGA-DIRT (www.cga-dirt.com)? OYes O No
3. Right-of-Way where event occurred: (select a	ill that apply)
☐ Public 🛋 Specify: O City Street C	
□ Private 🖒 Specify: O Private Landov	vner O Private Business O Private Easement
<ul> <li>Pipeline Property/Easement</li> <li>Dedicated Public Utility Easement</li> </ul>	Power/Transmission Line     Railroad       Federal Land     Unknown/Other
4 Was the facility part of a Joint Trench? OY	es O No

5. Did this event inv	olve a Cross l	Bore? C	Yes ON	No				
6. Measured Depth O Embedded in O Measured dep	Concrete/Aspl	halt Paven	nent O	<18 inches	s O 1	8 – 36 inches	O > 36	6 inches
7. Type of excavat	or: <i>(select onl</i> y	( one)						
O Contractor O Railroad	Ο Coι Ο Sta	,	O Develo O Utility	•	O Farmer O Unknowr	O Munic n/Other	ipality	O Occupant
8. Type of excavat	ion equipment	: (select o	nly one)					
O Auger		ackhoe/Tra		O Boring		O Drillin	-	O Directional Drilling
O Explosives		arm Equipi	nent	O Grade		O Hand		O Milling Equipment
O Probing De	evice O Tr	encher		O Vacuu	m Equipmer	nt O Bulldo	zer	O Unknown/Other
9. Type of work pe	rformed: <i>(sele</i>	ct only one	e)					
O Agriculture		O Cable		O Curb/S		O Building Co		O Building Demolition
O Drainage		O Drive	•	O Electri		O Engineerir		O Fencing
O Grading		O Irrigat		O Lands		O Liquid Pipe		O Milling
O Natural Ga				olic Transit	•	O Railroad M		O Road Work
O Sewer (Sa O Telecomm	• •	OTraffic	Developmer	O Traffi	iteam	O Storm Dra O Water	in/Cuivert	OStreet Light O Waterway Improvement
O Data not co			own/Other		c Sign	O Water		
10. Was the One-0			D Yes		f No, skip to	question 11		
								-Call Center notified:
	work area wh		O No	O Yes				
11. Type of Locato			acility Owne		Contract Loc		Jnknown/Othe	or
			-		-			51
12. Were facility lo				avation?	-		nknown	
13. Did the damag		•			O No		Unknown/Oth	ner
13a. If Y	es, specify du	ration of th	e interruptio	on: /	_///_	_/ hours		
14. Description of	the CGA-DIRT	Root Cau	se (select tl	he predom	inant CGA-E	DIRT Root Caus	e from the lis	t below):
Notificat	ion Issue	e	4					
	<ul> <li>No notifica</li> <li>Excavator</li> </ul>							
		-			ICKEL			
	□ Excavator							
	□ Excavator	-			formation			
Excavat	on Issue							
				-		-		
	<ul> <li>Excavator</li> <li>Excavator</li> </ul>					arks		
	□ Improper b			, support it	lointieo			
	□ Marks fade							
	□ Improper e	excavation	practice no	t listed abo	ove			
Locating		t marked a	us to Abon	danad faail	i			
	□ Facility not □ Facility not				•			
	□ Facility not			•	records/map	55		
	•				m operator/c	contract locator		
	□ Facility not							
	□ Facility not				•			
	Facility ma				-			
	□ Facility ma □ Facility ma					oras/maps		
	Facility ma     Facility ma		-					
Miscella	neous Root C							
	Deteriorate	,						
			or					
	Previous d	-	d (commont	roquired)				
		e not liste	u (comment	requirea):				

G4 - Other Outside Force Damage - *only one sub-cause can be picked from shaded left-hand column					
Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Accident					
Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation	1. Vehicle/Equipment operated by: <i>(select only one)</i> O Operator O Operator's Contractor O Third Party If this sub-section is picked, please complete questions 5-11 below				
Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels Set Adrift or Which Have Otherwise Lost Their Mooring	<ol> <li>Select one or more of the following IF an extreme weather event was a factor:</li> <li>O Hurricane</li> <li>O Tropical Storm</li> <li>O Tornado</li> <li>O Heavy Rains/Flood</li> <li>O O Other</li> </ol>				
Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation					
Electrical Arcing from Other Equipment or Facility					
Previous Mechanical Damage NOT Related to Excavation					
☐ Intentional Damage	3. Specify: O Vandalism O Theft of transported commodity O Other				
Other Outside Force Damage	4. Describe:				
	or Other Motorized Vehicle/Equipment NOT Engaged in Excavation sub-cause is selected. I one or more citations related to the accident? O Yes O No O Unknown ct all that apply)				
6. Was the driver under control of the vehicle at the	time of the collision? O Yes O No O Unknown				
7. Estimated speed of the vehicle at the time of impart	act (miles per hour)? or O Unknown				
8. Type of vehicle? (select only one) O Motorcy	cle/ATV O Passenger Car O Small Truck O Bus O Large Truck				
9. Where did the vehicle travel from to hit the pipelir O Roadway O Drivewa					

10. Shortest distance from answer in 9. to the damaged pipeline facility (in feet):

11. At the time of the accident, were protections installed to protect the damaged pipeline facility from vehicular damage? O Yes O No

If 11 is Yes, specify type of protection (select all that apply):

11a. Bollards/Guard Posts

11b. Barricades - include Jersey barriers and fences in instructions

11c. Guard Rails

11d. Other, describe:

G5 - Material Failure of Pipe	or Weld	Use this section to report mate Accident" (from PART C, Ques	erial failures ONLY I tion 3) is "Pipe" or '	F the "Item Involved in 'Weld."
		*Only one <b>sub-cause</b> can be pic	ked from shaded left	-hand column
<ol> <li>The sub-cause selected below is based on the</li> <li>□ Field Examination</li> <li>□ Determined by Metall</li> <li>□ Sub-cause is Tentative or Suspected; Still Ur</li> </ol>	lurgical Analysis	□ Other Analysis		
<ul> <li>Design-, Construction-, Installation-, or Fabrication-related</li> <li>Original Manufacturing-related (NOT girth weld or other welds formed in the field)</li> </ul>	☐ Fatigue- o ○ Meci ○ Meci ○ Pres ○ Ther ○ Othe □ Mechanica	۲		port of pipe)
Environmental Cracking-related		Stress Corrosion Cracking Stress Cracking	O Sulfide Stress Cra O Hard Spot	cking
omplete the following if any Material Failure of Pip		use is selected.		
Additional factors: <i>(select all that apply</i> ) O Dent O Wrinkl	O Gouge O Pi			O Lamination O Buckle
G6 - Equipment Failure - *only	one <b>sub-cause</b> o	can be picked from shaded left-har	nd column	
Malfunction of Control/Relief Equipment		lect all that apply) Control Valve O Instrumen Communications O Block Valv Relief Valve O Power Fa ESD System Failure Other	ve C	9 SCADA 9 Check Valve 9 Stopple/Control Fitting
Pump or Pump-related Equipment	C	Seal/Packing Failure O Body Appurtenance Failure Other	-	ack in Body
☐ Threaded Connection/Coupling Failure		Pipe Nipple O Valve O Threaded Pipe Collar O Threa O Other		hanical Coupling
□ Non-threaded Connection Failure	4. Specify: O	O-Ring O Gasket O S O Other	Seal (NOT pump seal	) or Packing
Defective or Loose Tubing or Fitting				
Failure of Equipment Body (except Pump), Tank Plate, or other Material				
□ 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)

- O Excessive vibration
- O Overpressurization
- O No support or loss of support
- O Manufacturing defect
- O Loss of electricity
- O Improper installation

- O Improper maintenance
- O Mismatched items (different manufacturer for tubing and tubing fittings)
- O Dissimilar metals
- O Breakdown of soft goods due to compatibility issues with transported commodity
- O Valve vault or valve can contributed to the release
- O Alarm/status failure
- O Misalignment
- O Thermal stress
- O Erosion/Abnormal Wear
- O Other \_\_\_

G7 - Incorrect Operation - *only one sub-cause can be picked from shaded left-hand column					
Damage by Operator or Operator's Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage					
Tank, Vessel, or Sump/Separator Allowed or Caused to Overfill or Overflow	1. Specify:	O Valve misalignment O Miscommunication O Other	O Incorrect reference data/calculation O Inadequate monitoring		
Valve Left or Placed in Wrong Position, but NOT Resulting in a Tank, Vessel, or Sump/Separator Overflow or Facility Overpressure					
Pipeline or Equipment Overpressured					
Equipment Not Installed Properly					
Wrong Equipment Specified or Installed					
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)

- O Inadequate procedure
- O No procedure established
- O Failure to follow procedure
- O Other:

4. What category type was the activity that caused the Accident:

- O Construction
- O Commissioning
- O Decommissioning
- O Right-of-Way activities
- O Routine maintenance
- O Other maintenance
- O Normal operating conditions
- O Non-routine operating conditions (abnormal operations or emergencies)
- 5. Was the task(s) that led to the Accident identified as a covered task in your Operator Qualification Program? O Yes O No

5a. If Yes, were the individuals performing the task(s) qualified for the task(s)?

O Yes, they were qualified for the task(s)

O No, but they were performing the task(s) under the direction and observation of a qualified individual

O No, they were not qualified for the task(s) nor were they performing the task(s) under the direction and observation of a qualified individual

Image: Comment field:       O Still under investigation ("Supplemental Report red Still under investigation (subCause in Part G1); or evious Mechanical Damage NOT Related to Excavation (subCause in Part G4); or terial Failure of Pipe or Weld (any subCause in Part G5)         lave internal inspection tools collected data at the point of the Accident?       O Yes O No         J1a.       If Yes, for each tool and technology used provide the information below for the most receint Axial Magnetic Flux Leakage         Most recent run Year:	
C Still under investigation     ("Supplemental Report red     ("Supplemental Complex red	quired)
plete the following if the "Item Involved in Accident" (from PART C, Question 3) is Pipe or rrosion (any subCause in Part G1); or sevious Damage due to Excavation Activity (subCause in Part G3); or sevious Mechanical Damage NOT Related to Excavation (subCause in Part G4); or terial Failure of Pipe or Weld (any subCause in Part G5)         lave internal inspection tools collected data at the point of the Accident?       O Yes         O Yes       O No         J1a.       If Yes, for each tool and technology used provide the information below for the most received Axial Magnetic Flux Leakage         Most recent run Propulsion Method (select only one):       O Free Swimming         Most recent run Propulsion Method (select only one):       O Head Loss         O Other       Describe:         If Metal Loss, specify (select only one):       O Free Swimming         O Tethered       Previous run Propulsion Method (select only one):         Previous run Propulsion Method (select only one):       O Her Describe:         Previous run Propulsion Method (select only one):       O Her Describe:         O Other       Describe:	Weld and the "Cause" (from Part G) is:
rrosion (any subCause in Part G1); or evious Damage due to Excavation Activity (subCause in Part G3); or evious Mechanical Damage NOT Related to Excavation (subCause in Part G4); or terial Failure of Pipe or Weld (any subCause in Part G5) lave internal inspection tools collected data at the point of the Accident? O Yes O No J1a. If Yes, for each tool and technology used provide the information below for the most recer Axial Magnetic Flux Leakage Most recent run Year: Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Most recent run Attuned to Detect (select only one): O Metal Loss O Hard Spots O O Other Describe: Previous run Year: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O High Resolution O Standard Re O Other Describe: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O High Resolution O Standard Re O Other Describe: If Metal Loss, specify (select only one): O High Resolution O Standard Re O Other Describe: If Metal Loss, specify (select only one): O High Resolution O Standard Re O Other Describe: Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Most recent run Resolution (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O High Resolution O Sta	Weld and the "Cause" (from Part G) is:
O Yes O No J1a. If Yes, for each tool and technology used provide the information below for the most received Axial Magnetic Flux Leakage Most recent run Year: Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Most recent run Attuned to Detect (select only one): O Metal Loss O Hard Spots O O Other Describe: Previous run Year: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Year: Previous run Attuned to Detect (select only one): O Free Swimming O Tethered Previous run Attuned to Detect (select only one): O Metal Loss O Hard Spots O O Other Describe: Previous run Attuned to Detect (select only one): O Metal Loss O Hard Spots O O Other Describe: If Metal Loss, specify (select only one): O High Resolution O Standard Re O Other Describe: If Metal Loss, specify (select only one): O High Resolution O Standard Re O Other Describe: Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Year: Previous run Year: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O High Resolution O Standard Re O Other Describe: Previous run Resolution (select only one): O High Resolution O Standard Re O Other Describe: Previous run Propulsion Method (select only one): O High Resolution O Standard Re O Other Describe: Itrasonic Most recent run Year:	
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Most recent run Propulsion Method (select only one):       O Free Swimming       O Tethered         Most recent run Attuned to Detect (select only one):       O Metal Loss       O Hard Spots       O         If Metal Loss, specify (select only one):       O High Resolution       O Standard Re       O         O Other Describe:	nt and previous tool runs:
Most recent run Propulsion Method (select only one):       O Free Swimming       O Tethered         Most recent run Attuned to Detect (select only one):       O Metal Loss       O Hard Spots       O         If Metal Loss, specify (select only one):       O High Resolution       O Standard Re       O       O Other Describe:	
<ul> <li>Other Describe:</li> <li>If Metal Loss, specify (select only one):</li> <li>High Resolution</li> <li>Other Describe:</li> <li>Other Describe:</li> <li>Previous run Year:</li> <li>Previous run Propulsion Method (select only one):</li> <li>Free Swimming</li> <li>Tethered</li> <li>Previous run Attuned to Detect (select only one):</li> <li>O Metal Loss</li> <li>O Hard Spots</li> <li>O Other Describe:</li> <li>If Metal Loss, specify (select only one):</li> <li>O Her Describe:</li> <li>O Other Describe:</li> <li>If Metal Loss, specify (select only one):</li> <li>O High Resolution</li> <li>O Standard Resolution</li> <li>O High Resolution</li> <li>O Standard Resolution<td></td></li></ul>	
If Metal Loss, specify (select only one): O High Resolution O Standard Re O Other Describe: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Attuned to Detect (select only one): O Metal Loss O Hard Spots O O Other Describe: If Metal Loss, specify (select only one): O High Resolution O Standard Re O Other Describe: Circumferential/Transverse Wave Magnetic Flux Leakage Most recent run Year: Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Most recent run Resolution (select only one): O Free Swimming O Tethered Most recent run Propulsion Method (select only one): O High Resolution O Standard Re O Other Describe: Previous run Year: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O High Resolution O Standard Re O Other Describe: Previous run Resolution (select only one): O High Resolution O Standard Re	Girth Weld Anomalies
O Other Describe: Previous run Year: Previous run Attuned to Detect (select only one): O Free Swimming O Tethered Previous run Attuned to Detect (select only one): O Metal Loss O Hard Spots O O Other Describe: If Metal Loss, specify (select only one): O High Resolution O Standard Re O Other Describe: Circumferential/Transverse Wave Magnetic Flux Leakage Most recent run Year: Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Most recent run Resolution (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O Free Swimming O Tethered O Other Describe: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Propulsion Method (select only one): O Free Swimming O Tethered O Other Describe: Previous run Propulsion Method (select only one): O Free Swimming O Tethered O Other Describe: Previous run Propulsion Method (select only one): O Free Swimming O Tethered O Other Describe: Previous run Propulsion Method (select only one): O High Resolution O Standard Re O Other Describe: Previous run Resolution (select only one): O High Resolution O Standard Re O Other Describe:	
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<ul> <li>Other Describe:</li> <li>If Metal Loss, specify (select only one):</li> <li>High Resolution</li> <li>Other Describe:</li> <li>Other Describe:</li> <li>Other Describe:</li> </ul> Circumferential/Transverse Wave Magnetic Flux Leakage Most recent run Year: Most recent run Propulsion Method (select only one): <ul> <li>O Free Swimming</li> <li>O Tethered</li> <li>Most recent run Resolution (select only one):</li> <li>O High Resolution</li> <li>O Standard Resolution run Propulsion Method (select only one):</li> <li>O Free Swimming</li> <li>O Tethered</li> <li>Previous run Year:</li> <li>Previous run Propulsion Method (select only one):</li> <li>O Free Swimming</li> <li>O Tethered</li> <li>Previous run Resolution (select only one):</li> <li>O Free Swimming</li> <li>O Tethered</li> <li>O Other Describe:</li> </ul>	
If Metal Loss, specify (select only one): O High Resolution O Standard Re O Other Describe:	
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Circumferential/Transverse Wave Magnetic Flux Leakage Most recent run Year: Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Most recent run Resolution (select only one): O High Resolution O Standard Re O Other Describe: Previous run Year: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O High Resolution O Standard Re O Other Describe: Iltrasonic Most recent run Year:	
Most recent run Resolution (select only one): O High Resolution O Standard Re O Other Describe: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O High Resolution O Standard Re O Other Describe:	
O Other Describe: Previous run Year: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O High Resolution O Standard Re O Other Describe: Iltrasonic Most recent run Year:	
Previous run Year: Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O High Resolution O Standard Re O Other Describe: Iltrasonic Most recent run Year:	esolution
Previous run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Resolution (select only one): O High Resolution O Standard Re O Other Describe:	
Previous run Resolution (select only one): O High Resolution O Standard Re O Other Describe:	
O Other Describe:	
Iltrasonic Most recent run Year:	
Most recent run Year:	
Most recent run Propulsion Method (select only one): O Free Swimming O Tethered	
Most recent run Attuned to (select only one)       O Wall Measurement       O Crack         O Other       Describe:	
If Attuned to Wall Measurement, most recent run Metal Loss Resolution (select only one):	
O Standard Resolution O Other Describe:	
Previous run Year:	
Previous run Propulsion Method (select only one): O Free Swimming O Tethered	
Most recent run Attuned to (select only one) O Wall Measurement O Crack O Other Describe:	

O Geometry/Deformation
Most recent run Year:
Most recent run Propulsion Method (select only one): O Free Swimming O Tethered
Most recent run Resolution (select only one): O High Resolution O Standard Resolution O Other Describe:
Most recent run Measurement Cups (select only one): O Inside ILI Cups O No Cups Previous run Year:
Previous run Propulsion Method (select only one): O Free Swimming O Tethered
Previous run Resolution (select only one): O High Resolution O Standard Resolution O Other Describe:
Previous run Measurement Cups (select only one): O Inside ILI Cups O No Cups
O Electromagnetic Acoustic Transducer (EMAT) Most recent run Year:
Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Year:
Previous run Propulsion Method (select only one): O Free Swimming O Tethered
O Cathodic Protection Current Measurement (CPCM) Most recent run Year:
Most recent run Propulsion Method (select only one): O Free Swimming O Tethered Previous run Year:
Previous run Propulsion Method (select only one): O Free Swimming O Tethered
O Other, specify tool:
Most recent run Year:
Most recent run Propulsion Method (select only one): O Free Swimming O Tethered
Previous run Year:
Previous run Propulsion Method (select only one): O Free Swimming O Tethered
Answer J1.b only when the cause is: Previous Damage due to Excavation Activity (subCause in Part G3); or Previous Mechanical Damage NOT Related to Excavation (subCause in Part G4)
J1b. Do you have reason to believe that the internal inspection was completed BEFORE the damage was sustained? O Yes O No
J2. Has one or more hydrotest or other pressure test been conducted since original construction at the point of the Accident? (initial post construction pressure test is NOT reported here)
O Yes ⊨≽ Most recent year tested: / / / / / Test pressure (psig): / / / / / / / O No
J3. Has Direct Assessment been conducted on the pipeline segment? O Yes, and an investigative dig was conducted at the point of the Accident  → Most recent year conducted: / / / / / / /
O Yes, but the point of the Accident was not identified as a dig site ○ No
If J3 is Yes, J3a. For each type, indicate the year of the most recent assessment: External Corrosion Direct Assessment (ECDA) <u>/ / / / /</u> Other, specify type:
J4. Has one or more non-destructive examination been conducted prior to the Accident at the point of the Accident since January 1, 2002? O Yes O No
J4a. If Yes, for each examination conducted, select type of non-destructive examination and indicate most recent year the examination wa conducted:
O Radiography
O Guided Wave Ultrasonic / / / / / / O Handheld Ultrasonic Tool / / / / /
O Handheld Ultrasonic Tool <u>1 1 1 1 1</u> O Wet Magnetic Particle Test <u>1 1 1 1 1</u>
O Dry Magnetic Particle Test <u>/ / / / /</u>
O Other, specify type / / / / /

## PART K - CONTRIBUTING FACTORS

The Apparent Cause of the accident is contained in Part G. Do not report the Apparent Cause again in this Part K. If Contributing Factors were identified during a root cause analysis, select all that apply below and explain each in the Narrative:

#### **External Corrosion**

- External Corrosion, Galvanic
- External Corrosion, Atmospheric
- □ External Corrosion, Stray Current Induced
- External Corrosion, Microbiologically Induced
- $\hfill\square$  External Corrosion, Selective Seam

### Internal Corrosion

- Internal Corrosion, Corrosive Commodity
- Internal Corrosion, Water drop-out/Acid
- Internal Corrosion, Microbiological
- Internal Corrosion, Erosion

## Natural Forces

- □ Earth Movement, NOT due to Heavy Rains/Floods
- □ Heavy Rains/Floods
- □ Lightning
- □ Temperature
- □ High Winds
- □ Tree/Vegetation Root

## Excavation Damage

- □ Excavation Damage by Operator (First Party)
- □ Excavation Damage by Operator's Contractor (Second Party)
- □ Excavation Damage by Third Party
- □ Previous Damage due to Excavation Activity

## Other Outside Force

- □ Nearby Industrial, Man-made, or Other Fire/Explosion
- □ Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation
- □ Damage by Boats, Barges, Drilling Rigs, or Other Adrift Maritime Equipment
- □ Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation
- □ Electrical Arcing from Other Equipment or Facility
- Previous Mechanical Damage NOT Related to Excavation
   Intentional Damage

## Pipe/Weld Failure

- Design-related
  - Construction-related
  - □ Installation-related
  - Fabrication-related
  - Original Manufacturing-related
  - Environmental Cracking-related, Stress Corrosion Cracking
  - Environmental Cracking-related, Sulfide Stress Cracking
  - Environmental Cracking-related, Hydrogen Stress Cracking
  - Environmental Cracking-related, Hard Spot

## Equipment Failure

- □ Malfunction of Control/Relief Equipment
- Pump or Pump-related Equipment
- □ Threaded Connection/Coupling Failure
- □ Non-threaded Connection Failure
- Defective or Loose Tubing or Fitting
- □ Failure of Equipment Body (except Compressor), Vessel Plate, or other Material
- Incorrect Operation
  - □ Damage by Operator or Operator's Contractor NOT Excavation and NOT Vehicle/Equipment Damage
  - □ Tank, Vessel, or Sump/Separator Allowed or Caused to Overfill or Overflow
  - □ Valve Left or Placed in Wrong Position, but NOT Resulting in Overpressure
  - Pipeline or Equipment Overpressured
  - Equipment Not Installed Properly
  - □ Wrong Equipment Specified or Installed
  - □ Inadequate Procedure
  - No procedure established
  - □ Failure to follow procedures

ART I – PREPARER AND AUTHORIZED SIGNATURE				
reparer's Name (type or print)	Prepare	Preparer's Telephone Number		
reparer's Title (type or print)				
Preparer's E-mail Address	Prepare	r's Facsimile Number		
ocal Contact Name: optional ocal Contact Email: optional ocal Contact Phone: optional				
uthorized Signer's Name	Date	Authorized Signer Telephone Number		
uthorized Signer's Title		Authorized Signer's E-mail Address		