DOT US Department of Transportation
PHMSA Pipelines and Hazardous Materials Safety Administration
OPS Office of Pipeline Safety
Western Region

Principal Investigator	Peter Katchmar
Regional Director	Chris Hoidal
Date of Report	8/04/2011
Subject	Failure Investigation Report – Bridger Lake LLC Crude Oil Release

Operator, Location, & Consequences

Date & Time of Failure:	4/2/2010 Time unknown
Commodity Released:	Light Crude Oil
City/County & State:	Robertson/Uinta County, WY
OpID & Operator Name	32483 Bridger Lake, LLC
Unit # & Unit Name	73779 6" Crude Line
SMART Activity #:	129897
Milepost / Location	Milepost 16.5
Type of Failure:	Rupture caused by Operator Error
Fatalities:	0
Injuries	0
Description of area impacted	Just to the east of Robertson, WY in a pasture
Property damage	$4 million.

Executive Summary

On 4/2/2010, a release occurred on the Bridger Lake, LLC (Bridger Lake) 6" crude oil line near Robertson, WY. The leak was not located by the operator's field personnel until the morning of Monday, 4/5/2010. Western Region became aware of the release on April 10, 2010, when Bridger Lake notified the National Response Center of the failure after a pool of crude oil ignited at the site during cleanup operations.

PHMSA's investigation revealed that the pipeline failed due to the line being over pressured by pumping against a closed valve. After the failure, approximately 1,473 barrels of crude was pumped into the pipeline over the weekend by the production company who is the only shipper who uses this pipeline. Also, the line fill from the top of the mountain to the release site is 204 BPM * 13.5 miles = 2754 BBLs + 1473 BBLs = 4227 BBLS estimated total released volume.

Bridger Lake maintained that this line was an unregulated rural gathering line. PHMSA maintained that this line is an interstate transmission line as defined in 49 CFR Part 195.1(a)(2). PHMSA issued a Corrective Action Order (CAO) to Bridger Lake on April 30, 2010. The line was repaired on April 11, 2010, but has not been restarted since the release.

On February 24, 2011, PHMSA entered into a Consent Agreement with Bridger Lake.

System Details

The Bridger Lake 6" line starts at the Whiting Petroleum Facility in the Wasatch National Forest in Summit County, UT and runs north approximately three (3) miles and uphill for 500 feet in elevation and then downhill 2000' in elevation for an additional 24 miles. The line crosses into Uinta County, WY at approximately MP 02. The line ends at a 25,000 barrel break out (BO) tank just north of I-80. The line can directly affect a drinking water high consequence area (HCA) and runs close to an ecological HCA. There are three production injection points on this line, the first is at the beginning of the line and there are two additional injection points near the high point of the 6-inch line. Records show that the line has been hydrostatically tested in portions in 1968 and again in 1988.

The production company sells the crude oil to Shell at lease-automatic-custody-transfer (LACT) units and the oil is pumped through a few miles of 3.5-inch gathering lines to the 6-inch Bridger Lake trunk line. The LACT unit is a critical system in ownership transfer of crude oil from the production site to trucks, pipelines, or storage tanks and offers the flexibility of completely automated 24-hour operation. When a tank fills to a level certain, the crude is automatically pumped through the LACT unit which meters the amount of oil that is pumped through it and subsequently into the pipeline. The line was designed as an ANSI 600 system with some ANSI 900 components at the end of the line. A back pressure of 800 psig in maintained at the end of the line to keep the line packed.

The calculated maximum operating pressures (MOP), based on hydrotest and checked against design calculations, at critical locations along the line are as follows:

Whiting Petroleum Plant MP 0.0	Elevation – 8882'	MOP = 547 psig
Lucky Ditch/Whiskey Springs MP 2.8	Elevation – 9353'	MOP = 385 psig
Robertson Valve Site MP 10	Elevation – 8191'	MOP = 802 psig
Bridger Terminal MP 27.1	Elevation – 7150'	MOP = 1185 psig

All deliveries are initiated at units owned and operated by Whiting Petroleum and are immediately sold to Shell on the downstream side of the LACT units. The tri-plex positive displacement pumps that are used to pump crude into the Bridger Lake pipeline are also owned and operated by Whiting Petroleum. The pumps have an overpressure control on their outlet side of between 800 psig and 1000 psig. These

are small plastic components that will fail and must be replaced. They are not able to be set at a certain pressure.

Bridger Lake trucks crude into a 500 barrel tank at the beginning of the line. Bridger Lake does not have their own meters and, therefore, there is no information on flow except production records. There is one mainline valve at milepost (MP) 10 and a rectifier at the end of the line to protect the tank bottom and the pipeline. There is no overpressure protection on the Bridger Lake 6-inch pipeline. The crude oil level in the 25,000 barrel tank is monitored by the Plains All-American Pipeline Company (PAAPL) at their control center in Texas. Also, the PAAPL control center initiates deliveries from the tank into their pipeline for transportation to refineries in Salt Lake City, UT. Due to the minimal volumes transported through this pipeline, the failure resulted in no supply issues.

System History

The 6-inch pipeline and BO tank were originally constructed in 1968 by Phillips Pipe Line Company. The alignment sheets show that the majority of the line was constructed with 6 5/8 inch diameter, API 5L-X-46, 0.156 inch wall thickness pipe; manufactured by Republic (coated with X-TRU Coat) and Lone Star (coated with Polykin 909), with an ERW long seam. The line currently operates whenever a LACT unit turns on and pumps a tank down the line.

The crude line appears to have been operated by Phillips Pipe Line Company up to the middle 1990s. The pipeline facility was sold numerous times between the mid 1990's and March 2006. Double On 8, LLC purchased the pipeline system on April 1, 2006 and has operated it under the name of Bridger Lake LLC since then. The current field operations manager has worked at this facility since Phillips Pipeline operated it. PHMSA had never inspected this facility before the release. In 1998 and again in 2008, a PHMSA engineer called Bridger Lake Operations Manager (OM) and asked about the functionality of the 27 mile pipeline. He was told both times that the line was a gravity line which dropped ~2000' into a 25,000 barrel tank just north of I-80. Pipelines that transport hazardous liquids by gravity are not subject to 49 CFR Part 195.

Events Leading up to the Failure

At the end of the month or the first of the month, the OM typically goes to the LACT units on the mountain and turns all of them off. Then he goes down to the end of line and closes the end of line mainline valve. Then he goes on top of the 25,000 barrel tank and gauges the tank. He then comes off the tank and reopens the end of line mainline valve.

On Thursday, April 1, 2010, the OM turned off the LACT units and closed the end of line valve and walked to the top of the tank and gauged it. When he came off the tank, he noticed that the pressure gauge on the pig receiver barrel read ~1500 psig. He knew this was abnormal so he went over and bled the pressure off of the receiver barrel and opened the end of line valve. He then tried to call someone from the production company who transports crude in the Bridger Lake line so he could ask them to initiate a delivery so he could see if the pressure would come back up. He could not raise anyone on the telephone.

The OM reported that on Friday morning April 2, 2010, he called the airline pilot who flies his pipeline and asked him to fly the line to see if he could see a leak. The OM said that he specifically asked the pilot to call him immediately upon landing but that the pilot did not. This was Easter weekend. The OM reported that he did not receive any information from the line flier until Monday morning, the 5th of April. He reported that he learned that the pilot had seen some brown & yellow grass near where the pipeline crossed Hwy 410. The OM reported that he drove out there and found the release. This was Monday, April 5, 2010.

Emergency Response

The OM reported that he immediately called the WY-One Call because he knew he was going to have to dig up his line and he knew Questar had an active line in the area. He next called his supervisor in Shreveport, LA to report the release. The supervisor reported that she thought the OM said he had called the National Response Center (NRC) instead of the WY-One Call so she didn't make that call.

Bridger Lake hired an environmental clean-up company, Enviro Care, out of Salt Lake City, UT to handle the release. They were being directed by C-K Associates out of Baton Rouge, LA on behalf of Bridger Lake. The operator contacted the Wyoming Department of Environmental Quality (WY-DEQ) and made application to be allowed to enter in their Voluntary Remediation Program (VRP). The WY-DEQ accepted Bridger Lake's application and approved their entry into the VRP. Under the VRP the operator must use an approved contractor who understands the appropriate remediation methods and thresholds for cleaning up the release.

On April 10, 2010, the Bridger Lake OM called the National Response Center (NRC) to report a fire at the release site (Appendix A). He added that there was a release of approximately 2,000 barrels of crude oil near Robertson, WY on April 5, 2010. The Western Region responded to the report by calling the operator. Again, the operator reported that the line was an unregulated gathering line.

Summary of initial start-up plan and return-to-service, including preliminary safety measures

The OM then reported that he called a nearby contractor who could perform the required repairs. The line was dug up and repaired by Tri-Star, a local pipeline contractor. The line was repaired and covered up before PHMSA arrived.

PHMSA issued a Corrective Action Order (CAO) to keep the pipeline shut down until everyone could understand the pipeline system and create an appropriate return-to-service plan that would ensure the safe operation of the pipeline system.

Bridger Lake approached PHMSA with a plan to isolate the pipeline from the BO tank and to return the BO tank to truck only service. PHMSA worked with Bridger Lake to get their personnel qualified to operate the tank and complete the appropriate testing of the tank. PHMSA allowed the BO tank to return to service on May 10, 2010.

Investigation Findings & Contributing Factors

On April 19, 2010, a representative of the Western Region PHMSA office was dispatched to the release site mainly to confirm the jurisdictional status of the line. When the investigator asked to see the failed section of pipe, he was shown an approximate four (4) foot long piece of 6-inch pipe that was in the back of the OM's pickup truck. A visual examination of the failed pipe revealed a fish-mouth rupture which indicated that the pipe had been over pressured. The PHMSA inspector asked the OM about this, specifically, how a gravity line could be over pressured. He said that it would be impossible. He was then asked where the pressure may have come from and the OM explained that there were positive displacement pumps that pushed the crude from the producer's LACT units to the Bridger Lake pipeline. The PHMSA investigator immediately started an official investigation into the release.

PHMSA personnel interviewed two Bridger Lake employees, the field Operations Manager who had been working at this facility for 30+ years, who was involved in the identification of the April 2, 2010, release and his supervisor who resides in Louisiana. The production company and the line flyer and the pipeline contractor who repaired the line were interviewed and supplied pertinent information. All

documentation made available by the Bridger Lake OM and some old documentation found at the Bridger Lake field office was reviewed during the investigation into this release.

The PHMSA investigator retrieved the approximate four (4) foot long pipe section of pipe that included the failed section from the back of the OM's pickup truck. Pictures were taken to document the pipe and some heavy plastic and some oil diapers were acquired. The failed pipe was wrapped in the diapers and plastic and taped with duct tape to preserve the failure.

An old operation, maintenance and emergency response (O, M & E) manual from the 1999 time frame when Coastal owned and operated this pipeline was found. The manual states that the line and associated facilities are DOT regulated. From the statements in the manual, it appeared that there used to be electronic monitoring equipment that was able to be monitored and controlled from a remote location. It appears that after Coastal sold this asset, the electronic monitoring and control system was deactivated and the O, M & E manual was left on the shelf.

The Bridger Lake line flyer was contacted and the Bridger Lake release was discussed. The pilot acknowledged receiving a call from the Bridger Lake OM on Friday, April 2, 2010. The pilot said he flew the line immediately and he saw a bulldozer working near the beginning of the pipeline as well as some brown or dirty snow near Robertson. The pilot said he called the OM on Friday April 2, 2010 and left a message on his cell phone. On Sunday, April 4, 2010, the pilot reported that he wrote up his line flyer report and faxed it to the OM.

The Bridger Lake OM had no records for the repair except a one-page schematic with distances written on it apparently drawn by Tri-star Constructors as it is signed and dated by one of their workers. PHMSA contacted Tri-Star and talked with the foreman who repaired the pipeline on April 11, 2010, and asked for any documentation of a hydrotest, welder qualifications, welding procedures, if the pipe installed was pre-hydrotested pipe, if they had taken any pictures of the repair site during or after the repair. The contractor was unable to provide any pertinent information except that they confirmed that they had performed the repair.

PHMSA finds that the root cause of this failure was that there was no mechanical over-pressure protection provided to protect the 6-inch transmission pipeline.

Contributing factors are:

1. The OM closed the end of line valve and did not open that valve until after a LACT unit came on and pumped crude oil into the pipeline.
2. No procedures for end of month shut down of the LACT units to perform the monthly gauging to prevent someone from turning on the LACT units while the end of line valve was shut.
3. Previous damage to the pipe - the pipeline ruptured at a dent in the pipe near MP 16.5.
4. The OM did not retrieve his voice mail until Monday morning – this allowed an additional 1473 BBLs to be pumped onto the ground over the weekend.

Appendices

Photographs

1st NRC Report

2nd NRC Report

Production Company Letter

Operator Accident Report

Kiefner Forensic Metallurgical Analysis Report

Aerial view of the release location. Robertson, WY is just to the left.

Release location before repairs.

Bridger Lake Pipeline ROW across BLM land.

Bridger Lake Pipeline ROW in the National Forest.

Bridger Lake remediation site allowed burn off of product.

The sign for the town of Robertson, WY.

Bridger Lake failed pipe.

Bridger Lake failed pipe.

Bridger Lake Crude Line Marker not updated since Coastal Owned and Operated the line.

The Release site.

The end of line scraper receiver and associated valving.

NATIONAL RESPONSE CENTER 1-800-424-8802
*** For Public Use ***
Information released to a third party shall comply with any
applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 936679

INCIDENT DESCRIPTION

*Report taken at 14:22 on 10-APR-10
Incident Type: PIPELINE
Incident Cause: EQUIPMENT FAILURE
Affected Area:
The incident occurred on 10-APR-10 at 10:30 local time.
Affected Medium: LAND GROUND

SUSPECTED RESPONSIBLE PARTY

Organization: BRIDGER LAKE LLC
MOUNTAIN VIEW, WY

Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

MILEPOST 12 County: UINTA
STATE HIGHWAY 410
City: MOUNTAIN VIEW State: WY

RELEASED MATERIAL(S)

CHRIS Code: OIL Official Material Name: OIL: CRUDE
Also Known As:
Qty Released: 2000 BARREL(S)

DESCRIPTION OF INCIDENT

CALLER STATED THAT THE SPILL OF 2000 BARRELS OF CRUDE OIL OCCURRED ON MONDAY APRIL 5, 2010. THE REPORTING PARTY WAS NOTIFIED OF THE INITIAL SPILL AT APPROXIMATELY 10:00AM. THERE WAS CORROSION FOUND IN THE LINE. WHILE DOING CLEANUP THERE WAS A FIRE THAT OCCURRED. THE IGNITION SOURCE IS UNKNOWN BUT SUSPECTED TO BE A SPARK FROM A ROCK STRIKE. THE INCIDENT TIME ON THIS REPORT WAS RECORDED AS THE TIME OF THE FIRE. THE REPORTING PARTY WAS MAKING THIS CALL DUE TO THE FIRE DURING CLEAN UP.

INCIDENT DETAILS

Pipeline Type: GATHERING
DOT Regulated: NO
Pipeline Above/Below Ground: BELOW
Exposed or Under Water: NO
Pipeline Covered: UNKNOWN

DAMAGES

Fire Involved: YES Fire Extinguished: YES

INJURIES:	NO	Hospitalized:	Empl/Crew:	Passenger:
FATALITIES:	NO	Empl/Crew:	Passenger:	Occupant:
EVACUATIONS:	NO	Who Evacuated:	Radius/Area:	

Damages: NO

Closure Type		Description of Closure	Length of Closure	Direction of Closure	
Air:	N				
Road:	N				Major Artery: N
Waterway:	N				
Track:	N				

Passengers Transferred: NO
Environmental Impact: UNKNOWN
Media Interest: NONE Community Impact due to Material:

REMEDIAL ACTIONS

PIPELINE LEAK WAS SECURED. PIPELINE SHUT DOWN. BUILT CONTAINMENT DAMS, CLEAN UP CREW ON SITE. VAC TRUCKS USED. REMOVING THE IMPACTED SOIL. THE IGNITION SOURCE FOR THE FIRE IS UNKNOWN BUT SUSPECTED TO BE FROM A ROCK STRIKE CREATING A SPARK.
Release Secured: YES
Release Rate:
Estimated Release Duration:

WEATHER

Weather: PARTLY CLOUDY, ºF

ADDITIONAL AGENCIES NOTIFIED

Federal: NONE
State/Local: WY DEQ
State/Local On Scene: NONE
State Agency Number: NONE

NOTIFICATIONS BY NRC

USCG ICC (ICC ONI)
10-APR-10 14:43
COLORADO INFO ANALYSIS CENTER (FUSION CENTER)
10-APR-10 14:43
DHS PROTECTIVE SECURITY ADVISOR (PSA DESK)
10-APR-10 14:43
DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)
10-APR-10 14:43
U.S. EPA VIII (MAIN OFFICE)
10-APR-10 15:04
USCG NATIONAL COMMAND CENTER (MAIN OFFICE)
10-APR-10 14:46
NE INFORMATION ANALYSIS CENTER (MAIN OFFICE)
10-APR-10 14:43
NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)
10-APR-10 14:43
NOAA RPTS FOR WY (MAIN OFFICE)
10-APR-10 14:43
NATIONAL RESPONSE CENTER HQ (MAIN OFFICE)
10-APR-10 14:46
PIPELINE & HAZMAT SAFETY ADMIN (OFFICE OF PIPELINE SAFETY (AUTO))
10-APR-10 14:43
PACIFIC STRIKE TEAM (MAIN OFFICE)
10-APR-10 15:01
DOI/OEPC DENVER (MAIN OFFICE)
10-APR-10 14:43
WY DEPARTMENT OF ENVIRON QUALITY (MAIN OFFICE)
10-APR-10 14:43
WYOMING CRIMINAL INTEL CENTER (SR INTELLIGENCE OFFICER)
10-APR-10 14:43
WYOMING OFFICE OF HOMELAND SECURITY (OPERATIONS DIVISION)
10-APR-10 14:43

ADDITIONAL INFORMATION

THE CALLER CLAIMED THAT THE NRC WAS NOTIFIED ON MONDAY, BUT NO REPORT NUMBER WAS AVAILABLE. REPORTING PARTY CALLED BACK PRIOR TO FULL REPORT PROCESSING TO NOTIFY US THAT INITIAL REPORT WAS NOT MADE TO US. ADDITIONAL CONTACT NUMBERS AND INFORMATION GATHERED AS A RESULT.

*** END INCIDENT REPORT # 936679 ***

NATIONAL RESPONSE CENTER 1-800-424-8802
*** For Public Use ***
Information released to a third party shall comply with any
applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 936687

INCIDENT DESCRIPTION

*Report taken at 16:45 on 10-APR-10
Incident Type: PIPELINE
Incident Cause: EQUIPMENT FAILURE
Affected Area:
The incident was discovered on 05-APR-10 at 10:00 local time.
Affected Medium: SUBSURFACE GROUND

SUSPECTED RESPONSIBLE PARTY

Organization: BRIDGER LAKE LLC
MOUNTAIN VIEW, WY

Type of Organization: PRIVATE ENTERPRISE

INCIDENT LOCATION

MILEPOST 12 County: UINTA
STATE HIGHWAY 410
City: MOUNTAIN VIEW State: WY

RELEASED MATERIAL(S)

CHRIS Code: OIL Official Material Name: OIL: CRUDE
Also Known As:
Qty Released: 2000 BARREL(S)

DESCRIPTION OF INCIDENT

CALLER STATED THAT THERE WAS CORROSION IN THE UNDERGROUND PIPELINE WHICH CAUSED A DISCHARGE OF 2000 BARRELS OF CRUDE OIL ONTO THE GROUND.

INCIDENT DETAILS

Pipeline Type: GATHERING
DOT Regulated: NO
Pipeline Above/Below Ground: BELOW
Exposed or Under Water: NO
Pipeline Covered: UNKNOWN

DAMAGES

Fire Involved: NO Fire Extinguished: UNKNOWN

INJURIES:	NO	Hospitalized:	Empl/Crew:	Passenger:
FATALITIES:	NO	Empl/Crew:	Passenger:	Occupant:
EVACUATIONS:	NO	Who Evacuated:	Radius/Area:	
Damages:	NO			

Closure Type		Description of Closure	Length of Closure	Direction of Closure
Air:	N			
Road:	N			
Waterway:	N			
Track:	N			

Major Artery: N

Passengers Transferred: NO
Environmental Impact: UNKNOWN
Media Interest: NONE Community Impact due to Material:

REMEDIAL ACTIONS

LEAK SECURED, PIPELINE SHUT DOWN, BUILT CONTAINMENT DAMS, CLEAN UP CREW ONSITE, VAC TRUCKS USED, EXCAVATING IMPACTED SOIL.
Release Secured: YES
Release Rate:
Estimated Release Duration:

WEATHER

Weather: PARTLY CLOUDY, ºF

ADDITIONAL AGENCIES NOTIFIED

Federal: NONE
State/Local: WY DEQ
State/Local On Scene: NONE
State Agency Number: NONE

NOTIFICATIONS BY NRC

USCG ICC (ICC ONI)
10-APR-10 16:55
COLORADO INFO ANALYSIS CENTER (FUSION CENTER)
10-APR-10 16:55
DHS PROTECTIVE SECURITY ADVISOR (PSA DESK)
10-APR-10 16:55
DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)
10-APR-10 16:55
U.S. EPA VIII (MAIN OFFICE)
10-APR-10 17:03
NE INFORMATION ANALYSIS CENTER (MAIN OFFICE)
10-APR-10 16:55
NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)
10-APR-10 16:55
NOAA RPTS FOR WY (MAIN OFFICE)
10-APR-10 16:55
PIPELINE & HAZMAT SAFETY ADMIN (OFFICE OF PIPELINE SAFETY (AUTO))
10-APR-10 16:55
PACIFIC STRIKE TEAM (MAIN OFFICE)
10-APR-10 16:59
DOI/OEPC DENVER (MAIN OFFICE)
10-APR-10 16:55
WY DEPARTMENT OF ENVIRON QUALITY (MAIN OFFICE)
10-APR-10 16:55
WYOMING CRIMINAL INTEL CENTER (SR INTELLIGENCE OFFICER)
10-APR-10 16:55
WYOMING OFFICE OF HOMELAND SECURITY (OPERATIONS DIVISION)
10-APR-10 16:55

ADDITIONAL INFORMATION

CALLER WAS UNDER THE UNDERSTANDING THAT THIS REPORT WAS CALLED IN ON MONDAY. NO REPORT HAD BEEN MADE.

*** END INCIDENT REPORT # 936687 ***

April 30, 2010

Mr. Peter Katchmar
Western Region, PHMSA
Accident Coordinator
US Department of Transportation
Pipeline and Hazardous Materials Safety Administration Office of Pipeline Safety
12300 West Dakota Avenue
Lakewood, CO 80228

RE: Bridger Lake Pipeline LLC
Pipeline Release

Dear Peter:

Whiting Oil and Gas Corporation is in receipt of your email dated April 27, 2010 requesting certain information concerning Whiting Oil and Gas Corporation (Whiting) operations in the Mountain View, Wyoming area.

Whiting became aware that you were interested in our facilities when our field personnel found you and the Bridger Lake Pipeline LLC (Bridger) operator inspecting our operations without prior notice. Whiting desires to fully cooperate with you concerning this matter and requests that you notify us of any further inspections. It appears your questions are related to the Bridger release that you indicated was discovered on April 1, 2010. Whiting was notified on April 6, 2010 by Bridger that a release had occurred on their pipeline. At that time, all oil deliveries to the Bridger pipeline ceased and oil deliveries were redirected to truck sales.

Whiting operates several fields that are connected to the Bridger pipeline. The crude oil produced from our fields is sold to Shell at the LACTs located at each production facility. All right, title, and custody is transferred at the respective LACTs to Shell. It is our understanding that Shell has an agreement with Bridger to transport the crude oil through the Bridger pipeline to the Rocky Mountain Pipeline.

The production from each well flows, through flowlines, from the wellhead to a production facility. At the production facility, production equipment separates the oil, gas, and water. The crude oil is then stored in a sales tank. When a sufficient volume is available, the crude oil is sold through a LACT to Shell.

Whiting Petroleum Corporation
and its wholly owned subsidiary
Whiting Oil and Gas Corporation
1700 Broadway, Suite 2300, Denver, Colorado 80290-2300 Office: 303.837.1661 Fax: 303.861.4023

The information you requested is as follows:

1.	**Production amounts sold into the Bridger Lake 6" line from 3/31/10 through 4/6/10:** Whiting sold 1473 BO to Shell, purchaser, during this period. Please note that no volumes were delivered to the Bridger Lake Pipeline LLC on April 1, 2010. The daily volumes sold to Shell are as follows: March 31, 2010 14 BO April 1, 2010 0 BO April 2, 2010 529 BO April 3, 2010 350 BO April 4, 2010 370 BO April 5, 2010 210 BO April 6, 2010 0 BO
2.	**A schematic of the production area that shows the proximity of the producing well to the gathering tanks immediately before the sales into the 6" line. I understand that Whiting owns the 3" and 4" lines from the sales tanks to the Luckey Ditch and Whiskey Springs sales points:** Whiting does own the associated gathering lines from the Luckey Ditch and Whiskey Springs sales points to the Bridger pipeline. The Luckey Ditch field has one production facility and one associated LACT. The crude oil sales are transported to the Bridger pipeline through a 3" gathering line. The Whiskey Springs field has four production facilities. Again, crude oil sales to Shell are through the individual LACTs at each production facility. Each LACT is connected to a 4" gathering line and transported to the Bridger pipeline.
3.	**Does Whiting truck all production from the wellheads to the sales tanks or are the pipelines from some on the wellheads to the sales tanks:** As explained above, Whiting does not truck or pipeline directly from the wellhead to the sales tank. Production flows from the wellhead to the production facility. At the production facility, the production equipment allows for the separation of oil, gas, and water. The oil production is then stored in the sales tank prior to sales.
4.	**Post release question – Does Whiting truck all production to Bridger Lake's 25K BBL tank or to some other sales point now:** Custody transfer (sales) of the crude oil product to Shell occurs at the LACTs which are located at the production facilities. As such, Whiting does not have right, title, or custody to the crude oil beyond the LACTs. It is our understanding that Shell, crude oil purchaser, is presently trucking the crude oil sales to the Bridger Lake Pipeline LLC 25000 BBL tank.

I would hope that the information provided by our personnel cleared up some of the misconceptions that were brought forth. Whiting also requests that we be informed of the full details of this circumstance. If a meeting to define the circumstances would be helpful, we are certainly available and would like to participate.

Should you require additional information concerning this matter, please contact me at the above address or call 303.390.4222.

Respectfully yours,

John A. D'Hooge
Operations Manager – Central Rockies

CC:
Chris Hoidal
Director, Western Region
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
12300 W. Dakota Avenue, Suite 110
Lakewood, CO 80228

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:**	05/25/2011
	No.	20110155 - 15821 --- (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		
Last Revision Date:			

1. Operator's OPS-issued Operator Identification Number (OPID):	32483
2. Name of Operator	BRIDGER LAKE, LLC
3. Address of Operator:	
3a. Street Address	800 SPRING STREET, SUITE 205
3b. City	SHREVEPORT
3c. State	Louisiana
3d. Zip Code	71101
4. Local time *(24-hr clock)* and date of the Accident:	04/05/2010 09:10
5. Location of Accident:	
Latitude:	41.184974
Longitude:	-110.410612
6. National Response Center Report Number (if applicable):	936679
7. Local time *(24-hr clock)* and date of initial telephonic report to the National Response Center (if applicable):	04/10/2010 13:19
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. Estimated volume of intentional and/or controlled release/blowdown (Barrels):	
11. Estimated volume of commodity recovered (Barrels):	
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:	04/05/2010 09:10
14b. Local time pipeline/facility restarted:	
- Still shut down? (* Supplemental Report Required)	Yes
15. Did the commodity ignite?	Yes
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:	04/05/2010 09:10
18b. Local time Operator resources arrived on site:	04/06/2010 08:00

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:	Wyoming
3. Zip Code:	82994
4. City	Robertson
5. County or Parish	Uinta
6. Operator-designated location:	Milepost/Valve Station
Specify:	
7. Pipeline/Facility name:	Bridger Lake
8. Segment name/ID:	Mile Post 17
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. 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:	Intrastate
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 Body
3a. Nominal diameter of pipe (in):	6.58
3b. Wall thickness (in):	.156
3c. SMYS (Specified Minimum Yield Strength) of pipe (psi):	62,500
3d. Pipe specification:	Grade B line pipe
3e. Pipe Seam , specify:	Longitudinal ERW - Unknown Frequency
- If Other, Describe:	
3f. Pipe manufacturer:	
3g. Year of manufacture:	1968
3h. Pipeline coating type at point of Accident, specify:	Other
- If Other, Describe:	Polyken 909
- 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:	1968
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	3
in. (length circumferentially or axially)	12
- 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	Yes
- 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	$ 0
8b. Estimated cost of commodity lost	$ 0
8c. Estimated cost of Operator's property damage & repairs	$ 0
8d. Estimated cost of Operator's emergency response	$ 0
8e. Estimated cost of Operator's environmental remediation	$ 0
8f. Estimated other costs	$ 4,000,000
Describe:	Amount to date. Accouting doesn't differentiate between remd. and emerg. resp
8g. Estimated total costs (sum of above)	$ 4,000,000

PART E - ADDITIONAL OPERATING INFORMATION

1. Estimated pressure at the point and time of the Accident (psig):	1,500.00
2. Maximum Operating Pressure (MOP) at the point and time of the Accident (psig):	800.00
3. Describe the pressure on the system or facility relating to the Accident (psig):	Pressure exceeded MOP, but did not exceed 110% of 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:	Manual
5b. Type of downstream valve used to initially isolate release source:	Manual
5c. Length of segment isolated between valves (ft):	89,760
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?	No
If Yes -	
6a. Was it operating at the time of the Accident?	
6b. Was it fully functional at the time of the Accident?	
6c. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?	
6d. Did SCADA-based information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	
7. Was a CPM leak detection system in place on the pipeline or facility involved in the Accident?	No
- If Yes:	
7a. Was it operating at the time of the Accident?	
7b. Was it fully functional at the time of the Accident?	
7c. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the detection of the Accident?	
7d. Did CPM leak detection system information (such as alarm(s), alert(s), event(s), and/or volume calculations) assist with the confirmation of the Accident?	
8. How was the Accident initially identified for the Operator?	Air Patrol
- 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:	Contractor working for the Operator
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 facility was not monitored by a controller(s) at the time of the Accident
- 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	
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:	G7 - Incorrect Operation

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 High Winds:	
- 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 Excavation Damage by Operator (First Party):	
- If Excavation Damage by Operator's Contractor (Second Party):	
- If Excavation Damage by Third Party:	
- 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 Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Incident:	
- 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 Routine or Normal Fishing or Other Maritime Activity NOT Engaged in Excavation:	
- If Electrical Arcing from Other Equipment or Facility:	
- 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:	
- If Malfunction of Control/Relief Equipment:	
1. Specify: *(select all that apply)* -	
- Control Valve	
- Instrumentation	
- SCADA	
- Communications	
- Block Valve	
- Check Valve	
- Relief Valve	
- Power Failure	
- Stopple/Control Fitting	
- ESD System Failure	
- Other	
- If Other – Describe:	
- If Pump or Pump-related Equipment:	
2. Specify:	
- If Other – Describe:	
- If Threaded Connection/Coupling Failure:	
3. Specify:	
- If Other – Describe:	
- If Non-threaded Connection Failure:	
4. Specify:	
- If Other – Describe:	
- If Defective or Loose Tubing or Fitting:	
- If Failure of Equipment Body (except Pump), Tank Plate, or other Material:	
- If Other Equipment Failure:	
5. Describe:	
Complete the following if any Equipment Failure sub-cause is selected.	
6. Additional factors that contributed to the equipment failure: *(select all that apply)*	
- Excessive vibration	
- Overpressurization	
- No support or loss of support	
- Manufacturing defect	
- Loss of electricity	
- Improper installation	

- Mismatched items (different manufacturer for tubing and tubing fittings)	
- Dissimilar metals	
- Breakdown of soft goods due to compatibility issues with transported commodity	
- Valve vault or valve can contributed to the release	
- Alarm/status failure	
- Misalignment	
- Thermal stress	
- Other	
- If Other, Describe:	

G7 - Incorrect Operation - only one **sub-cause** can be selected from the shaded left-hand column

Incorrect Operation – Sub-Cause:	Pipeline or Equipment Overpressured
- If Damage by Operator or Operator's Contractor NOT Related to Excavation and NOT due to Motorized Vehicle/Equipment Damage:	
- If Tank, Vessel, or Sump/Separator Allowed or Caused to Overfill or Overflow:	
1. Specify:	
- If Other, Describe:	
- If Valve Left or Placed in Wrong Position, but NOT Resulting in a Tank, Vessel, or Sump/Separator Overflow or Facility Overpressure:	
- If Pipeline or Equipment Overpressured:	
- If Equipment Not Installed Properly:	
- If Wrong Equipment Specified or Installed:	
- 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	Yes
- Failure to follow procedure	
- Other:	
- If Other, Describe:	
4. What category type was the activity that caused the Accident?	Normal operating conditions
5. Was the task(s) that led to the Accident identified as a covered task in your Operator Qualification Program?	No
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

A rupture of the crude oil pipeline operated by Bridger Lake, LLC occurred while the pipeline was on a scheduled monthly one-day downtime period for storage tank measurements. The tank volume measurements are taken and used to compare with lease operators stated input quantities. The pipeline¿s main manual valve to the storage tank is closed during this period to prevent additional flow into the tank during measurement. The Bridger Lake employee indicated that a third-party began introducing additional crude oil into the pipeline during this time. In such a case, the extra input of oil led to an overpressurization of the pipeline that resulted in the failure at the weakest spot along the pipeline, in this case, a dent. The dent occurred at some point prior to rupture.
The Bridger Lake employee became aware of the spill on Monday morning, April 5, 2010 because the pipeline pressure was extremely low, a secondly, the line ¿flyer reported a dark spot in the snow between mile post 16 and 17.

File Full Name

PART I - PREPARER AND AUTHORIZED SIGNATURE	
Preparer's Name	Karen Courtman
Preparer's Title	Administrator
Preparer's Telephone Number	318-429-0271
Preparer's E-mail Address	karen@bridgergroup.com
Preparer's Facsimile Number	318-429-7103
Authorized Signature's Name	Julio E. Rios
Authorized Signature Title	President
Authorized Signature Telephone Number	318-429-0271
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Date	05/25/2011

Kiefner Forensic Metallurgical Analysis Report

This document is on file at PHMSA