



CREDIBLE. INDEPENDENT.
IN THE PUBLIC INTEREST.

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<http://www.pipelinesafetytrust.org>

Who Operates
Pipelines in The Salt
Lake Valley and
What's the Risk?



Where are the major pipelines in Salt Lake County?



Pipeline Systems in the Salt Lake Valley

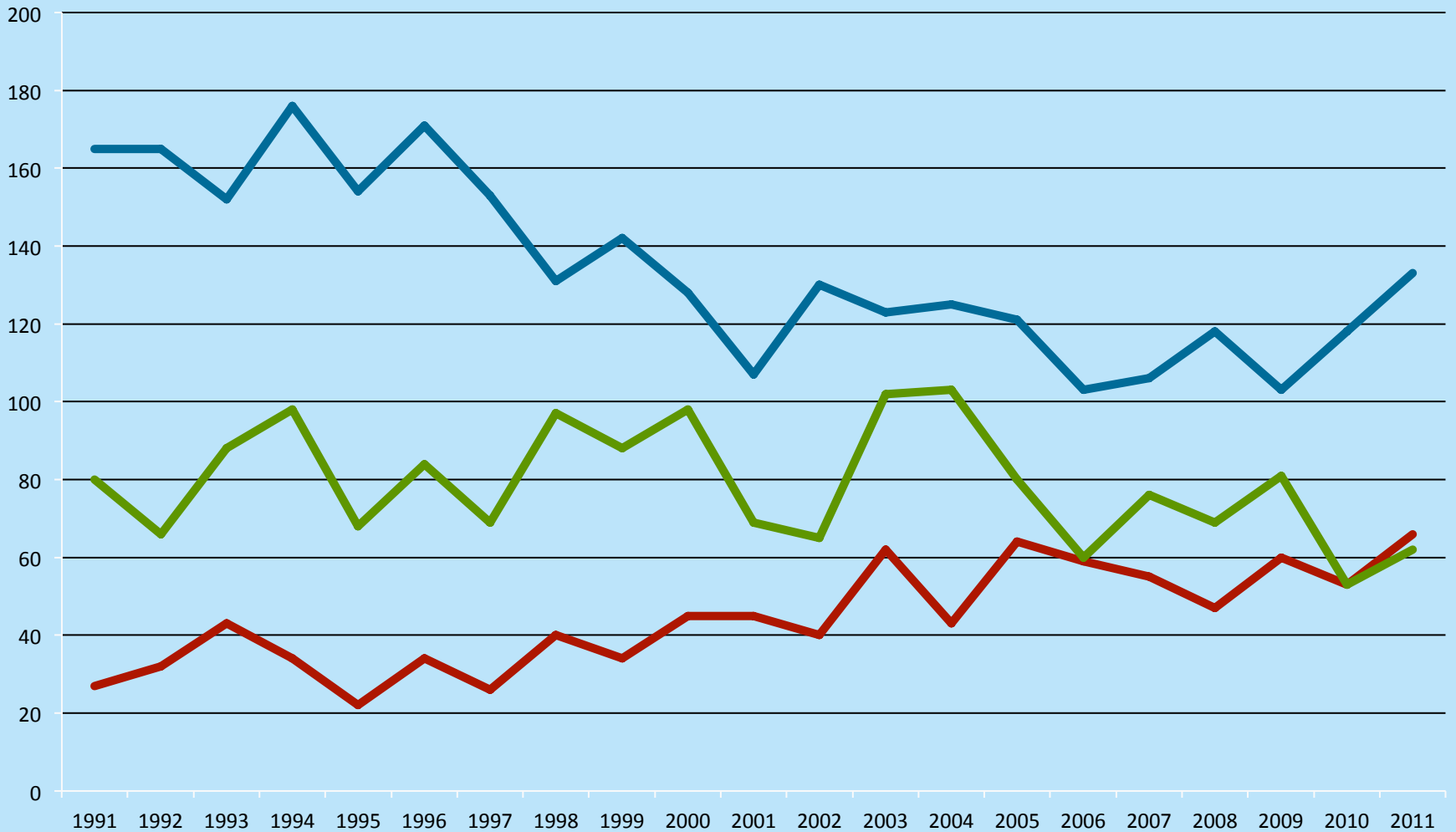
- Kern River Gas Transmission Company – Moves about 2.17 billion cubic feet/day of natural gas from production areas in Wyoming to Utah, Nevada, and California. This is enough for about 22,000 homes for a year
- Chevron Pipeline Company – Moves crude oil from NW Colorado gathering system down Emigration Canyon to its refinery in Salt Lake City. Various refined product pipelines, such as jet fuel to the airport, leave the refinery.
- Questar Corporation operates Questar Gas & Questar Pipeline Co. Questar Pipeline Company transports natural gas from Wyoming to Questar Gas which is a local gas distribution company with almost 900,000 customers in Utah, Wyoming and Idaho. Questar Gas also operates some large transmission lines within the Salt Lake Valley.
- UNEV Pipeline – Operated by HollyFrontier transports refined products from the Salt Lake Valley refineries to terminals in Cedar City and Las Vegas.
- Tesoro also operates some transmission crude oil and refined product pipelines near their refinery.



Incident Trends

Significant Onshore Incidents

— Hazardous Liquid — Gas Transmission — Gas Distribution



Utah Natural Gas Transmission Significant Incidents

DATE	COMPANY	CITY	COUNTY	CLASS	DEATHS	INJURIES	PROPERTY DAMAGE	CAUSE
1/15/01	QUESTAR GAS COMPANY	LEHI	UTAH	1	0	0	\$372,740	DAMAGE BY OUTSIDE FORCE
4/8/07	QUESTAR PIPELINE COMPANY	PRICE	CARBON	2	0	0	\$129,752	MALFUNC. OF CONTROL/RELIEF EQUIP.
2/18/06	QUESTAR GAS COMPANY	SOUTH WEBER	DAVIS	3	0	0	\$497,255	MISCELLANEOUS
12/10/11	COLORADO INTERSTATE GAS CO	NEAREST - HYRUM	CACHE	1	0	0	\$2,278,500	OTHER INCIDENT CAUSE
5/11/11	QUESTAR PIPELINE COMPANY	VERNAL	UINTAH	1	0	0	\$68,600	EQUIPMENT FAILURE
				TOTALS	0	0	\$3,346,847	

Utah Distribution Significant Incidents

DATE	COMPANY	CITY	COUNTY	CLASS	DEATHS	INJURIES	PROPERTY DAMAGE	CAUSE
1/10/87	MOUNTAIN FUEL SUPPLY	MURRAY	SALT LAKE	3	0	4	\$953,905	DAMAGE BY OUTSIDE FORCES
6/24/94	MOUNTAIN FUEL SUPPLY	SALT LAKE CITY	SALT LAKE	3	1	0	\$112,362	DAMAGE BY OUTSIDE FORCES
1/9/95	MOUNTAIN FUEL SUPPLY	SALT LAKE	SALT LAKE	3	0	1	\$0	ACCIDENTALLY CAUSED BY OPERATOR
3/14/95	MOUNTAIN FUEL SUPPLY	PARK CITY	SUMMIT	3	0	0	\$343,892	DAMAGE BY OUTSIDE FORCES
7/8/96	MOUNTAIN FUEL SUPPLY	SPRINGVILLE	UTAH	3	0	1	\$0	DAMAGE BY OUTSIDE FORCES
2/24/98	QUESTAR GAS COMPANY	PARK CITY	SUMMIT	3	0	0	\$131,059	DAMAGE BY OUTSIDE FORCES
2/9/02	QUESTAR GAS COMPANY	PAYSON	UTAH	3	0	0	\$669,611	DAMAGE BY OUTSIDE FORCES
5/22/02	QUESTAR GAS COMPANY	FORT DUCHESNE	UINTA	3	0	0	\$112,008	DAMAGE BY OUTSIDE FORCES
11/29/03	QUESTAR GAS COMPANY	GARLAND	BOX ELDER	3	0	2	\$122,188	DAMAGE BY OUTSIDE FORCES
2/21/04	QUESTAR GAS COMPANY	MAPLETON	UTAH	3	0	0	\$119,151	HEAVY RAINS/FLOODS
6/14/04	QUESTAR GAS COMPANY	MURRAY	SALT LAKE	3	0	1	\$893,286	CAR, TRUCK OR OTHER VEHICLE
3/24/06	QUESTAR GAS COMPANY	PARK CITY	SUMMIT	3	0	0	\$111,838	HEAVY RAINS/FLOODS
2/6/07	QUESTAR GAS COMPANY	SARATOGA SPRINGS	UTAH	3	2	0	\$222,780	THIRD PARTY EXCAVATION DAMAGE
10/9/07	QUESTAR GAS COMPANY	MURRAY	SALT LAKE	3	0	0	\$544,471	OPERATOR EXCAVATION DAMAGE
3/16/08	QUESTAR GAS COMPANY	MAGNA	SALT LAKE	3	0	1	\$10,411	CAR, TRUCK OR OTHER VEHICLE
4/13/08	QUESTAR GAS COMPANY	WASHINGTON	WASHINGTON	3	0	0	\$157,244	CAR, TRUCK OR OTHER VEHICLE
8/7/08	QUESTAR GAS COMPANY	SALT LAKE CITY	SALT LAKE	3	0	1	\$0	INCORRECT OPERATION
6/1/09	QUESTAR GAS COMPANY	WEST VALLEY CITY	SALT LAKE	3	0	2	\$10,894	CAR, TRUCK OR OTHER VEHICLE
				TOTALS	3	13	\$4,515,101	

Utah Hazardous Liquid Significant Incidents

DATE	NAME	CITY	COUNTY	DEATHS	INJURY	PROPERTY DAMAGE	CAUSE
11/24/85	AMOCO PIPELINE CO		SUMMIT	0	0	\$1,200	OTHER
2/14/86	CHEVRON PIPELINE CO	MYTON	DUCHESNE	0	0	\$0	FAILED PIPE
9/17/86	CHEVRON PIPELINE CO		DUCHESNE	0	0	\$850	INCORRECT OPERATION
11/10/86	CHEVRON PIPELINE CO	MYTON	DUCHESNE	0	0	\$95,000	OTHER
6/22/87	CHEVRON PIPELINE CO		SALT LAKE	0	0	\$75,000	OUTSIDE FORCE DAMAGE
11/25/87	CHEVRON PIPELINE CO		DAVIS	0	0	\$100,000	FAILED PIPE
3/1/90	FOUR CORNERS PIPELINE CO	MONTEZUMA CREEK	SAN JUAN	0	0	\$5,000	CORROSION
2/26/91	AMOCO PIPELINE CO		SUMMIT	0	0	\$500	OTHER
4/19/91	CHEVRON PIPELINE CO	UNKNOWN	DAVIS	0	0	\$375,000	CORROSION
6/27/91	CHEVRON PIPELINE CO	UNKNOWN	SUMMIT	0	0	\$57,750	OUTSIDE FORCE DAMAGE
11/30/91	GIANT INDUSTRIES INC	MONTEZUMA CREEK	SAN JUAN	0	0	\$3,500	MALFUNC OF CONTROL OR RELIEF EQUIP
12/9/91	CHEVRON PIPELINE CO		DAVIS	0	0	\$100,000	FAILED PIPE
8/10/92	FOUR CORNERS PIPELINE CO		SAN JUAN	0	0	\$35,000	CORROSION
5/17/94	MID - AMERICA PIPELINE CO		SAN JUAN	0	0	\$1,487	MALFUNC OF CONTROL OR RELIEF EQUIP
2/1/95	ARCO TERMINAL SERVICES	MONTEZUMA	SAN JUAN	0	0	\$500,000	CORROSION
3/5/96	CHEVRON PIPELINE CO	SALT LAKE CITY		0	0	\$1,000,000	CORROSION
12/16/96	CHEVRON PIPELINE CO	WOODS CROSS	DAVIS	0	0	\$180,000	OTHER
1/29/97	MOBIL EXPLORATION		SAN JUAN	0	0	\$2,000	MALFUNC OF CONTROL OR RELIEF EQUIP
4/28/98	CHEVRON PIPELINE CO	WEST HAVEN	WEBER	0	0	\$100,000	OTHER
12/3/98	MID - AMERICA PIPELINE CO	GRAND		0	4	\$70,000	OUTSIDE FORCE DAMAGE
1/21/00	CHEVRON PIPE LINE CO	CORRINE	BOX ELDER	0	0	\$150,000	FAILED WELD
1/12/02	GIANT PIPELINE CO		SAN JUAN	0	0	\$5,062	MALFUNC OF CONTROL OR RELIEF EQUIP
2/6/02	CHEVRON PIPELINE CO	SALT LAKE CITY	DAVIS	0	0	\$266,398	CORROSION
11/2/02	CHEVRON PIPELINE CO	CORINNE	BOX ELDER	0	0	\$250,000	CORROSION
8/25/04	CHEVRON PIPE LINE CO	PARK CITY	WASATCH	0	0	\$381,500	EXCAVATION DAMAGE

Consequences of spills from crude oil pipelines

Environmental and property damage, drinking water contamination, potential large liability to responsible parties, health effects



Consequences of natural gas pipeline failures



Explosions, fires, pressure release impacts

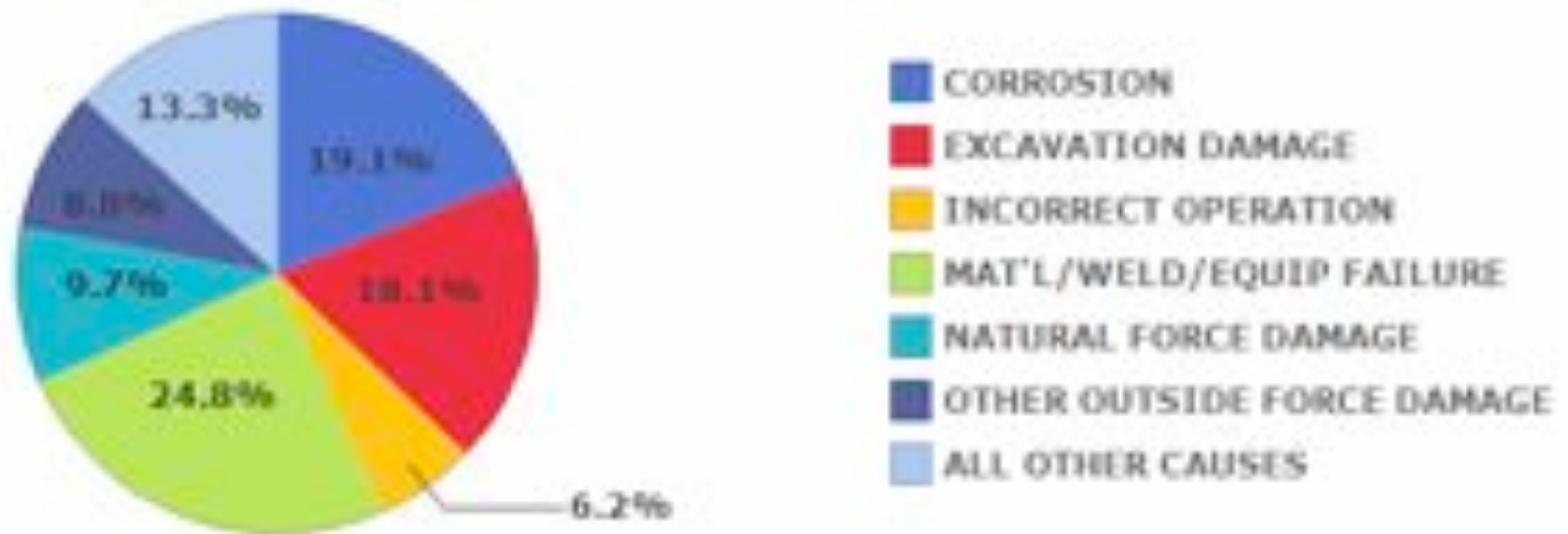
Consequences of liquid product pipeline failures

Explosions, fires, soil and groundwater contamination



What are the causes of pipeline incidents nationally?

Significant Incident Cause Breakdown
National, All Pipeline Systems, 2002-2011



Source: PHMSA Significant Incidents Files March 5, 2012

2818 Incidents

What are the causes of distribution pipeline incidents in Utah?

Significant Incident Cause Breakdown
Utah, Gas Distribution, 2002-2011

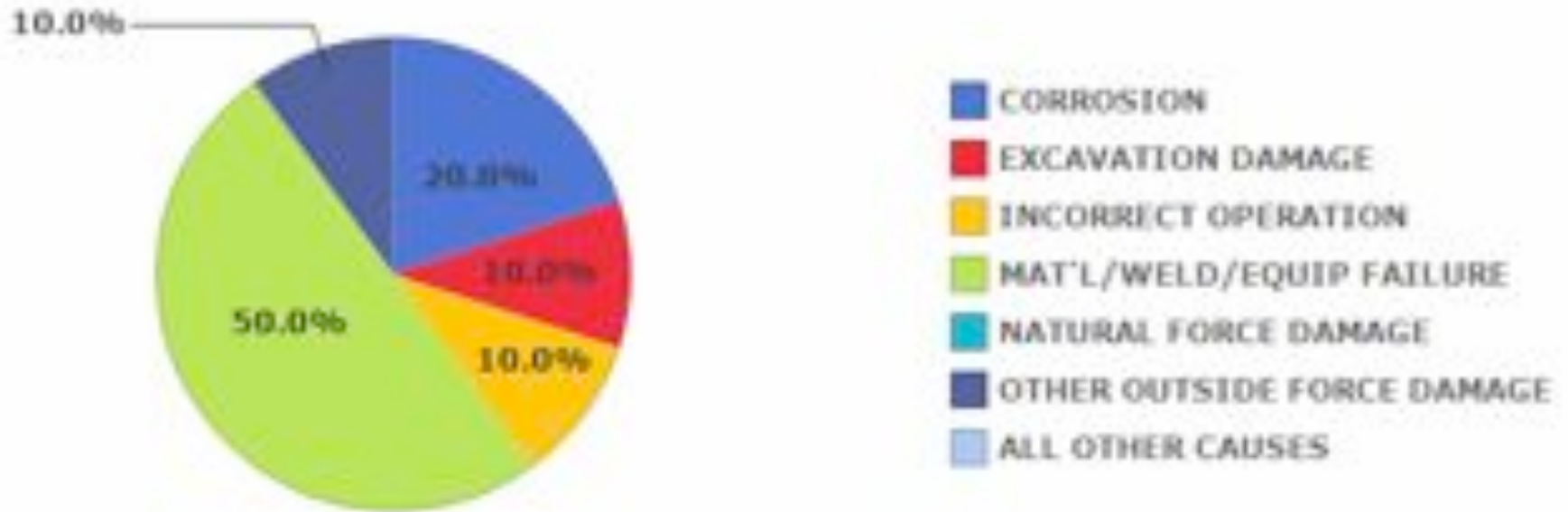


Source: PHMSA Significant Incidents Files March 5, 2012

12 Incidents

What are the causes of hazardous liquid pipeline incidents in Utah?

Significant Incident Cause Breakdown
Utah, Hazardous Liquid Onshore, 2002-2011



Source: PHMSA Significant Incidents Files March 5, 2012

10 Incidents

What are the causes of natural gas transmission pipeline incidents in Utah?

Significant Incident Cause Breakdown
Utah, Gas Transmission Onshore, 2002-2011



Source: PHMSA Significant Incidents Files March 5, 2012

3 Incidents

How To Think About Risk?

Risk = Probability X Consequence

Over the past 10 years the probability for a gas transmission pipeline incident nationally is 1 significant incident per year per 6057 miles of onshore pipelines, and for a hazardous liquid pipelines it is 1 significant incident per year per 1522 miles of onshore hazardous liquid pipelines. So Salt Lake County could statistically expect a significant incident once every 21 years for gas lines and once every 25 years for hazardous liquid.

Is That Safe Enough For You?



Still Safe
Enough?

What is the potential impact area?

