

SD&GE, July 14, 2024

Rulemaking (R) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, 15-01-008, 2024 June Report

Appendix 4, Rev. 03/29/2024

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight range.

If all of the status and services are not conveyed annually, use the tab "Unconveyed Pipeline Leaks" to indicate emissions.

Do not record above ground MSA leaks on this tab. Use Appendix 4 instead. Do continue to list above ground leaks associated with the Distribution Main & Services pipeline system.

After completing the tab "Pipeline Leaks," fill in the table for "Pipeline Leak Summary."

Sum Total Emissions from leaks carried over from before 2023

2

Sum Total Emissions from Survey leaks discovered in 2023

1,438

Sum Total Emissions from C&M Leaks discovered in 2023

289

Grand Total of all 2023 emissions from leaks

4,076

Note: No change to C&M leak duration for this reporting cycle.

Distribution Main & Service Pipeline Leaks:

ID	Geographic Location	Pipe Classification	Pipe Material	Pipe Size (inches)	Pipe Age (months)	Pressure (psi)	Leak Grade	Upgraded Leak Grade or Downgraded Leak Grade	Above Ground or Below Ground	Leak Discovery Method	Discovery Date (MM/DD/YYYY)	Re-Grade Date (MM/DD/YYYY)	Repair Date (MM/DD/YYYY)	Scheduled Repair Date (MM/DD/YYYY)	Reason for Not Scheduling a Repair	Number of Days Leaking	Number of Days to Repair	Extension Factor (Max/Days)	Annual Emissions (lbs/yr)	Explanatory Notes / Comments
2102267	02104	DR	PC	3/4"	805	Less than or equal to 60	2	B	M		2/20/2023		2/20/2023			20	20	0.1154	1.2	
2113134	01942	DR	PC	3/4"	899	Less than or equal to 60	2	B	S		6/26/2023		7/18/2023			209	23	0.1154	23.0	
2102024	02104	DR	PC	3/4"	779	Less than or equal to 60	2	B	M		3/05/2023		2/10/2023			10	10	0.1154	1.2	
2104139	02009	DR	P	1 1/4"	527	Less than or equal to 60	1	B	M		2/26/2023		2/26/2023			1	1	0.1154	0.1	
2100304	02104	DR	PC	3/4"	767	Less than or equal to 60	2	B	S		5/09/2023		5/10/2023			11	7	0.1154	0.1	
2115330	02069	DR	P	1/2" IPS	419	Less than or equal to 60	1	B	S		7/26/2023		7/26/2023			207	1	0.1154	23.9	
2103360	02115	MR	P	1 1/2"	563	Less than or equal to 60	2	B	S		11/10/2023		11/10/2023			114	5	0.1154	36.2	
2111746	02105	DR	PC	3/4"	899	Less than or equal to 60	2	B	S		6/26/2023		7/11/2023			180	36	0.1154	22.2	
2110622	01945	MR	PC	3"	755	Less than or equal to 60	2	B	S		5/23/2023		6/13/2023			144	23	0.1154	18.9	
2109069	02128	MR	P	2"	537	Less than or equal to 60	2	B	S		5/10/2023		5/10/2023			7	7	0.1154	0.1	
2118727	02019	DR	PC	3/4"	815	Less than or equal to 60	2	B	S		8/11/2023		9/13/2023			236	30	0.1154	28.5	
2107042	02104	MR	P	3"	587	Less than or equal to 60	2	B	S		4/7/2023		5/10/2023			18	18	0.1154	13.6	
2114220	02037	MR	PC	1 1/2"	767	Less than or equal to 60	2	B	S		7/18/2023		8/2/2023			214	24	0.1154	14.7	
2109212	02104	MR	PC	2"	557	Less than or equal to 60	2	B	S		5/12/2023		5/28/2023			138	18	0.1154	15.8	
2106737	02025	MR	PC	4"	1043	Less than or equal to 60	2	B	S		4/21/2023		4/21/2023			111	17	0.1154	12.8	
2104055	02020	DR	PC	1 1/2"	851	Less than or equal to 60	1	B	M		2/15/2023		2/15/2023			1	1	0.1154	0.1	
2114840	02020	DR	P	1/2" IPS	575	Less than or equal to 60	2	B	S		7/18/2023		8/2/2023			213	15	0.1154	24.6	
2112827	01950	DR	PC	3/4"	767	Less than or equal to 60	2	B	M		5/17/2023		5/17/2023			1	1	0.1154	0.1	
2103124	02114	DR	P	1/2" IPS	635	Less than or equal to 60	1	B	M		12/22/2023		12/22/2023			1	1	0.1154	0.1	
2107260	02102	DR	PC	3/4"	575	Less than or equal to 60	1	B	M		11/20/2023		11/20/2023			1	1	0.1154	0.1	
2106321	02115	DR	PC	3/4"	851	Less than or equal to 60	2	B	M		3/28/2023		4/24/2023			27	27	0.1154	3.1	
2104944	02115	DR	PC	3/4"	751	Less than or equal to 60	2	B	S		5/06/2023		5/6/2023			1	1	0.1154	0.1	
2110032	01945	MR	PC	2"	923	Less than or equal to 60	2	B	S		5/15/2023		6/16/2023			147	13	0.1154	19.3	
2114883	01941	DR	PC	1 1/4"	551	Less than or equal to 60	2	B	S		7/18/2023		7/18/2023			1	1	0.1154	0.1	
2113166	01977	DR	PC	3/4"	779	Less than or equal to 60	2	B	S		6/29/2023		7/17/2023			198	25	0.1154	22.8	
2118414	02115	MR	PC	1 1/2"	755	Less than or equal to 60	2	B	S		9/7/2023		9/7/2023			26	26	0.1154	2.3	
2107504	02101	MR	PC	2"	803	Less than or equal to 60	2	B	S		9/22/2023		9/22/2023			1	1	0.1154	0.1	
2103020	01945	DR	PC	3/4"	751	Less than or equal to 60	1	B	S		5/10/2023		5/10/2023			1	1	0.1154	0.1	
2113090	01941	DR	P	1/2" IPS	589	Less than or equal to 60	2	B	S		7/5/2023		7/5/2023			186	14	0.1154	21.5	
2115861	02021	MR	PC	4"	605	Less than or equal to 60	2	B	M		8/4/2023		8/4/2023			18	18	0.1154	3.8	
2110860	02115	DR	PC	1"	1019	Less than or equal to 60	2	B	M		5/24/2023		5/25/2023			2	2	0.1154	0.2	
2112371	02071	MR	PC	2"	761	Less than or equal to 60	2	B	S		2/18/2023		2/18/2023			112	14	0.1154	16.0	
2111260	02114	MR	PC	1 1/2"	911	Less than or equal to 60	2	B	S		5/9/2023		6/12/2023			173	23	0.1154	20.0	
2107577	02205	DR	PC	3/4"	767	Less than or equal to 60	2	B	S		4/13/2023		4/26/2023			134	12	0.1154	12.2	
2102784	02114	DR	P	1 1/4"	575	Less than or equal to 60	1	B	M		2/7/2023		2/7/2023			1	1	0.1154	0.1	
2104005	02071	DR	PC	3/4"	875	Less than or equal to 60	1	B	M		11/26/2023		11/26/2023			1	1	0.1154	0.1	
2115451	02019	DR	PC	3/4"	779	Less than or equal to 60	2	B	S		1/22/2023		1/22/2023			1	1	0.1154	0.1	
2102824	01910	DR	PC	3/4"	779	Less than or equal to 60	2	B	M		12/13/2023		12/13/2023			1	1	0.1154	0.1	
2103129	02116	MR	PC	1/2"	823	Less than or equal to 60	2	B	S		6/2/2023		6/2/2023			171	20	0.1154	19.7	
2110541	02114	MR	PC	1/2"	823	Less than or equal to 60	2	B	S		6/2/2023		6/2/2023			151	13	0.1154	15.1	
2109247	01950	MR	PC	1 1/2"	743	Less than or equal to 60	2	B	M		1/30/2023		9/6/2023			8	8	0.1154	0.9	
2101200	02017	MR	P	2"	627	Less than or equal to 60	2	B	M		1/18/2023		1/20/2023			1	1	0.1154	0.2	
2115845	01901	DR	P	3"	587	Less than or equal to 60	2	B	S		11/14/2023		11/17/2023			321	4	0.1154	17.0	
2117351	01954	DR	PC	3/4"	823	Less than or equal to 60	2	B	S		12/28/2023		12/28/2023			880	1	0.1154	88.0	
2105059	01950	DR	PC	3/4"	871	Less than or equal to 60	1	B	M		1/11/2023		1/11/2023			1	1	0.1154	0.1	
2103529	02078	DR	PC	1/2"		Less than or equal to 60	2	B	S		9/17/2023		9/17/2023			365	7	0.1154	42.1	
2104844	02107	DR	PC	3/4"		Less than or equal to 60	2	B	M		3/6/2023		3/4/2023			7	7	0.1154	0.8	
2111412	02116	MR	PC	1/2"	1146	Less than or equal to 60	2	B	S		6/2/2023		6/2/2023			171	20	0.1154	19.7	
2110541	02114	MR	PC	1/2"	823	Less than or equal to 60	2	B	S		6/2/2023		6/2/2023			151	13	0.1154	15.1	
2109247	01950	MR	PC	1 1/2"	743	Less than or equal to 60	2	B	M		1/30/2023		9/6/2023			8	8	0.1154	0.9	
2101200	02017	MR	P	2"	627	Less than or equal to 60	2	B	M		1/18/2023		1/20/2023			1	1	0.1154	0.2	
2115845	01901	DR	P	3"	587	Less than or equal to 60	2	B	S		11/14/2023		11/17/2023			321	4	0.1154	17.0	
2117351	01954	DR	PC	3/4"	823	Less than or equal to 60	2	B	S		12/28/2023		12/28/2023			880	1	0.1154	88.0	
2105059	01950	DR	PC	3/4"	871	Less than or equal to 60	1	B	M		1/11/2023		1/11/2023			1	1	0.1154	0.1	
2103529	02078	DR	PC	1/2"		Less than or equal to 60	2	B	S		9/17/2023		9/17/2023			365	7	0.1154	42.1	
2104844	02107	DR	PC	3/4"		Less than or equal to 60	2	B	M		3/6/2023		3/4/2023			7	7	0.1154	0.8	
2111412	02116	MR	PC	1/2"	1146	Less than or equal to 60	2	B	S		6/2/2023		6/2/2023			171	20	0.1154	19.7	
2110541	02114	MR	PC	1/2"	823	Less than or equal to 60	2	B	S		6/2/2023		6/2/2023			151	13	0.1154	15.1	
2109247	01950	MR	PC	1 1/2"	743	Less than or equal to 60	2	B	M		1/30/2023		9/6/2023			8	8	0.1154	0.9	
2101200	02017	MR	P	2"	627	Less than or equal to 60	2	B	M		1/18/2023		1/20/2023			1	1	0.1154	0.2	
2115845	01901	DR	P	3"	587	Less than or equal to 60	2	B	S		11/14/2023		11/17/2023			321	4	0.1154	17.0	
2117351	01954	DR	PC	3/4"	823	Less than or equal to 60	2	B	S		12/28/2023		12/28/2023			880	1	0.1154	88.0	
2105059	01950	DR	PC	3/4"	871	Less than or equal to 60	1	B	M		1/11/2023		1/11/2023			1	1	0.1154	0.1	
2103529	02078	DR	PC	1/2"		Less than or equal to 60	2	B	S		9/17/2023		9/17/2023			365	7	0.1154	42.1	
2104844	02107	DR	PC	3/4"		Less than or equal to 60	2	B	M		3/6/2023		3/4/2023			7	7	0.1154	0.8	
2111412	02116	MR	PC	1/2"	1146	Less than or equal to 60	2	B	S											



2052513	02139	DR	PC	3/4"	871	Less than or equal to 60	2	R	S	8/13/2023	5/12/2023	132	61	0.1354	15.2
2057507	02104	DR	P	3/4"	1043	Less than or equal to 60	2	R	S	4/21/2023	4/21/2023	102	1	0.1354	11.8
2058357	02007	DR	PC	3/4"	887	Less than or equal to 60	2	R	M	8/24/2023	4/9/2023	1	1	0.1354	0.1
2058405	02045	DR	PC	3/4"	895	Less than or equal to 60	2	R	S	5/15/2023	5/15/2023	139	5	0.1354	18.0
2154207	02025	MR	P	1 1/4"	548	Less than or equal to 60	2	R	S	7/12/2023	8/8/2023	25	25	0.1354	21.8
2154028	02027	MR	PC	1 1/2"	888	Less than or equal to 60	2	R	S	7/6/2023	7/25/2023	206	20	0.1354	23.8
2153351	02105	MR	P	3/4"	811	Less than or equal to 60	2	R	M	7/24/2023	7/24/2023	1	1	0.1354	0.1
2001664	02104	DR	PC	3/4"	1007	Less than or equal to 60	1	R	M	1/25/2023	1/25/2023	1	1	0.1354	0.1
2000355	02101	DR	PC	1 1/2" CTS	539	Less than or equal to 60	1	R	M	1/5/2023	1/5/2023	1	1	0.1354	0.1
2051587	02084	DR	PC	3/4"	875	Less than or equal to 60	2	R	M	5/11/2023	3/7/2023	17	17	0.1354	2.0
2154157	02056	DR	PC	3/4"	599	Less than or equal to 60	2	R	M	11/27/2023	11/27/2023	2	2	0.1354	0.2
2054540	01950	DR	PC	3/4"	815	Less than or equal to 60	2	R	M	3/9/2023	3/9/2023	79	18	0.1354	9.1
2151362	02037	DR	PC	3/4"	779	Less than or equal to 60	2	R	S	7/7/2023	8/20/2023	232	17	0.1354	29.8
2152387	01955	DR	PC	3/4"	1018	Less than or equal to 60	2	R	M	11/8/2023	11/8/2023	4	4	0.1354	0.8
2055447	02118	DR	PC	3/4"	1043	Less than or equal to 60	1	R	M	9/7/2023	9/7/2023	1	1	0.1354	0.1
2052969	02084	DR	P	1 1/4"	587	Less than or equal to 60	1	R	S	3/9/2023	3/9/2023	40	40	0.1354	4.8
2052776	02106	DR	PC	3/4"	863	Less than or equal to 60	2	R	M	12/18/2023	12/28/2023	11	11	0.1354	1.9
2151451	02115	DR	PC	3/4"	813	Less than or equal to 60	2	R	S	4/20/2023	4/26/2023	17	17	0.1354	20.7
2052783	02069	MR	P	1"	591	Less than or equal to 60	1	R	M	3/6/2023	2/7/2023	2	2	0.1354	0.2
2053464	02115	DR	PC	1 1/2"	815	Less than or equal to 60	1	R	M	2/15/2023	2/15/2023	170	1	0.1354	0.1
2008380	02104	DR	PC	3/4"	1200	Less than or equal to 60	2	R	S	4/24/2023	5/6/2023	121	8	0.1354	14.0
2008409	02113	DR	PC	3/4"	983	Less than or equal to 60	2	R	M	4/24/2023	4/24/2023	1	1	0.1354	0.2
2002113	02064	DR	PC	3/4"	751	Less than or equal to 60	2	R	M	5/15/2023	1/25/2023	1	1	0.1354	0.2
2054155	02126	MR	P	2"	539	Less than or equal to 60	1	R	M	3/24/2023	2/25/2023	2	2	0.1354	0.2
2151737	02115	DR	PC	3/4"	539	Less than or equal to 60	2	R	S	4/6/2023	12/12/2023	196	100	0.1354	10.9
2152378	02118	DR	PC	1 1/2" CTS	421	Less than or equal to 60	2	R	S	10/28/2023	11/2/2023	106	6	0.1354	15.3
2152958	02071	MR	PC	1 1/2"	612	Less than or equal to 60	2	R	M	11/10/2023	11/10/2023	130	14	0.1354	16.9
2109198	02025	DR	PC	1"	599	Less than or equal to 60	1	R	S	5/25/2023	5/25/2023	145	1	0.1354	16.7
2054805	02104	MR	PC	3/4"	779	Less than or equal to 60	2	R	S	3/4/2023	3/4/2023	63	3	0.1354	7.3
2059485	02085	MR	P	1 1/2"	707	Less than or equal to 60	2	R	M	5/6/2023	5/6/2023	12	12	0.1354	1.4
2004844	02124	DR	PC	1 1/2" CTS	611	Less than or equal to 60	2	R	M	3/9/2023	3/9/2023	2	2	0.1354	0.2
2152086	02009	DR	PC	3/4"	551	Less than or equal to 60	2	R	M	11/7/2023	11/7/2023	3	3	0.1354	0.3
2057608	02027	MR	P	2"	563	Less than or equal to 60	1	R	S	4/13/2023	4/13/2023	104	2	0.1354	12.0
2151382	02105	MR	PC	1 1/2"	899	Less than or equal to 60	1	R	S	4/20/2023	4/20/2023	133	14	0.1354	15.7
2054465	02084	DR	PC	1"	571	Less than or equal to 60	1	R	S	3/1/2023	2/7/2023	34	1	0.1354	3.9
2056151	02058	DR	PC	3/4"	827	Less than or equal to 60	2	R	M	8/7/2023	8/7/2023	1	1	0.1354	0.1
2152338	02116	DR	PC	3/4"	981	Less than or equal to 60	2	R	S	6/15/2023	8/6/2023	220	55	0.1354	25.4
2005862	02106	DR	PC	3/4"	883	Less than or equal to 60	1	R	M	12/15/2023	1/13/2023	2	2	0.1354	0.2
2057313	02115	DR	PC	3/4"	751	Less than or equal to 60	2	R	M	4/12/2023	4/12/2023	73	2	0.1354	8.4
2054521	01913	DR	P	1 1/2" CTS	239	Less than or equal to 60	2	R	S	2/15/2023	3/14/2023	73	28	0.1354	8.4
2152127	01950	MR	PC	3/4"	1019	Less than or equal to 60	2	R	M	4/11/2023	4/11/2023	38	38	0.1354	4.4
2003695	02071	DR	P	1"	18	Less than or equal to 60	1	R	M	2/18/2023	2/18/2023	1	1	0.1354	0.1
2152784	02077	DR	PC	3/4"	779	Less than or equal to 60	2	R	M	11/20/2023	11/20/2023	1	1	0.1354	0.2
2151407	02115	DR	PC	3/4"	911	Less than or equal to 60	2	R	S	6/2/2023	6/9/2023	177	25	0.1354	20.4
2152287	02071	MR	PC	3/4"	655	Less than or equal to 60	2	R	S	10/10/2023	10/10/2023	386	25	0.1354	36.6
2152643	02110	DR	PC	3/4"	863	Less than or equal to 60	2	R	M	10/13/2023	11/10/2023	4	4	0.1354	0.5
2000083	02037	MR	P	2"	611	Less than or equal to 60	1	R	M	1/10/2023	1/10/2023	1	1	0.1354	0.2
2057175	02084	DR	PC	3/4"	875	Less than or equal to 60	2	R	M	1/26/2023	1/26/2023	31	4	0.1354	1.8
2153316	02105	MR	PC	3/4"	743	Less than or equal to 60	2	R	S	5/7/2023	6/9/2023	180	44	0.1354	20.8
2150863	02101	DR	PC	3/4"	527	Less than or equal to 60	2	R	M	1/27/2023	1/27/2023	144	1	0.1354	14.8
2150824	02037	DR	PC	3/4"	839	Less than or equal to 60	1	R	M	10/10/2023	10/10/2023	1	1	0.1354	0.1
2157174	02117	DR	PC	3/4"	527	Less than or equal to 60	2	R	M	12/7/2023	12/7/2023	385	1	0.1354	40.1
2152450	02081	MR	PC	1 1/4"	563	Less than or equal to 60	2	R	M	10/9/2023	11/9/2023	11	11	0.1354	1.3
2058545	02103	DR	PC	3/4"	875	Less than or equal to 60	1	R	M	12/14/2023	12/14/2023	1	1	0.1354	0.1
2051550	02101	MR	PC	1 1/2"	718	Less than or equal to 60	2	R	M	1/24/2023	1/24/2023	3	3	0.1354	0.3
2150770	02110	MR	PC	3/4"	556	Less than or equal to 60	2	R	S	5/23/2023	5/23/2023	143	1	0.1354	16.5
2158489	02081	MR	P	3/4"	599	Less than or equal to 60	2	R	M	4/14/2023	4/14/2023	274	23	0.1354	29.4
2051387	02104	DR	PC	3/4"	123	Less than or equal to 60	1	R	M	1/23/2023	1/23/2023	1	1	0.1354	0.1
2150511	02021	DR	PC	3/4"	695	Less than or equal to 60	2	R	S	8/23/2023	8/23/2023	271	1	0.1354	31.3
2009892	02104	MR	PC	1 1/2"	827	Less than or equal to 60	2	R	M	5/1/2023	5/16/2023	18	16	0.1354	1.8
2150925	02115	DR	PC	3/4"	1151	Less than or equal to 60	2	R	M	9/7/2023	9/7/2023	15	15	0.1354	1.7
2154565	02037	DR	PC	3/4"	755	Less than or equal to 60	1	R	S	12/4/2023	12/4/2023	138	1	0.1354	18.0
2007923	02104	MR	PC	1 1/2"	971	Less than or equal to 60	2	R	S	4/18/2023	4/18/2023	118	11	0.1354	13.6
2056651	02109	MR	P	1 1/4"	611	Less than or equal to 60	1	R	M	5/7/2023	5/7/2023	114	102	0.1354	12.6
2150857	02010	MR	P	2"	887	Less than or equal to 60	2	R	S	9/26/2023	9/26/2023	289	13	0.1354	21.8
2054625	01950	DR	PC	3/4"	887	Less than or equal to 60	2	R	M	3/5/2023	10/7/2023	21	2	0.1354	2.7
2005058	01910	DR	PC	3/4"	815	Less than or equal to 60	2	R	S	3/9/2023	4/11/2023	101	34	0.1354	11.7
2158423	02115	DR	PC	3/4"	827	Less than or equal to 60	2	R	M	9/7/2023	9/7/2023	14	14	0.1354	1.4
2151762	02105	MR	PC	1 1/2"	817	Less than or equal to 60	2	R	S	4/6/2023	6/6/2023	157	1	0.1354	18.1
2057127	02037	MR	PC	1 1/4"	599	Less than or equal to 60	2	R	M	6/6/2023	6/6/2023	188	5	0.1354	19.5
2058135	02115	MR	PC	2"	471	Less than or equal to 60	1	R	M	2/10/2023	2/10/2023	1	1	0.1354	0.1
2008408	02118	MR	PC	2"	819	Less than or equal to 60	2	R	M	4/24/2023	5/4/2023	11	11	0.1354	1.3
2051412	02108	DR	PC	3/4"	647	Less than or equal to 60	2	R	M	1/19/2023	1/19/2023	1	1	0.1354	0.1
2004850	02027	DR	PC	3/4"	635	Less than or equal to 60	2	R	M	11/28/2023	11/28/2023	2	2	0.1354	0.2
2052865	02084	MR	PC	3/4"	275	Less than or equal to 60	2	R	S	3/6/2023	3/6/2023	41	7	0.1354	4.7
2158842	02037	DR	PC	3/4"	651	Less than or equal to 60	2	R	M	8/14/2023	9/11/2023	264	8	0.1354	30.5
2152554	02115	DR	PC	3/4"	623	Less than or equal to 60	2	R	M	4/28/2023	5/26/2023	136	2	0.1354	15.6
2159229	02058	DR	PC	3/4"	671	Less than or equal to 60	2	R	S	8/19/2023	11/9/2023	134	73	0.1354	18.5
2007962	02128	MR	P	2"	587	Less than or equal to 60	2	R	S	5/11/2023	5/18/2023	138	8	0.1354	15.9
2151355	02145	DR	PC	3/4"	587	Less than or equal to 60	2	R	M	1/18/2023	1/18/2023	1	1	0.1354	0.1
2152529	02110	DR	PC	3/4"	751	Less than or equal to 60	2	R	S	8/9/2023	8/23/2023	235	15	0.1354	27.1
2150880	02145	DR	PC	2"	675	Less than or equal to 60	2	R	M	5/15/2023	5/15/2023	171	171	0.1354	17.1
2051449	01910	DR	PC	3/4"	1007	Less than or equal to 60	2	R	M	2/11/2023	3/6/2023	24	24	0.1354	2.8
2150619	02101	MR	PC	1 1/2"	483	Less than or equal to 60	2	R	M	12/16/2023	12/16/2023	4	4	0.1354	0.5
2157898	02114	MR	PC	1 1/2"	863	Less than or equal to 60	2	R	M	8/28/2023	9/12/2023	38	16	0.1354	1.8
2156271	02081	DR	PC	3/4"											

SDG&E, July 1st, 2024

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008, 2024 June Report

Appendix 4: Rev. 03/29/2024

Notes:

Definitions in Data Request R15-01-008, 2024 June Report

If highlighted cells are filled in the other cells will auto-populate

The number of miles surveyed (Column C) should be the number of unique miles surveyed, and should not include any repeated miles surveyed multiple times per year.

To clarify the definition of O&M Leaks (Column O), the following criteria for O&M Leaks should be met: (1) occur stochastically across the whole territory, (2) are reported by customers, (3) found quickly after occurring, (4) found independently of survey activities but would have been found later by surveyors, and (5) considered a small number of leaks.

To clarify the definition of Survey Leaks (Column C), the following criteria for Survey Leaks should be met: (1) found from company employees or contractors actively searching for leaks (2) including, but not limited to, compliance survey leaks and non-compliance survey leaks (e.g. Super Emitter Programs, Aerial Methane Mapping, Corrosion Surveying.)

Summary of Data by Pipeline Facility/Material and Results for Annual System Leak Rate and Resulting Number of Unknown Leaks for Each Pipeline Facility/Material												
Facility/Material	Total System Miles per material type	Miles on Annual Survey [M <sub>SA</sub> ]	Miles on Multi-Year Survey Cycles [M <sub>MC</sub> ]	Survey Interval (yrs) [I]	Miles Surveyed Annually from Multi-Year Survey Cycles [M <sub>SL</sub> ]	Total # of Leaks Detected from Survey [N <sub>SL</sub> ]	If using a 3-year trailing leak rate average then include - 2021 Annual Leak Rate [R <sub>SL</sub> ]	If using a 3-year trailing leak rate average then include - 2022 Annual Leak Rate [R <sub>SL</sub> ]	2023 Annual Leak Rate [R <sub>SL</sub> ]	If applicable, then calculate the 3-year Average Leak Rate (Leaks / Mile / Yr) $R_x = \frac{1}{3} \sum_{i=1}^3 R_{SL}$	# of Unknown Leaks $N_{SL,unk} = \overline{R}_x \times (M_{SL}^{int} - M_{SL}) \times \frac{I}{2}$	Total # of Leaks Detected from O&M* [N <sub>SL,O</sub> ]
Main/Vintage* Plastic	1,475	1,475	-	1	0	39	0.0257	0.0287		0.02645	0.02697	34
Main/Plastic	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA
Main/Plastic	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA
Main/Plastic	3,278	1,036	2,242	3	747	3	0.0093	0.0019	0.00092	0.00103	2.31	4
Main/Unprotected Steel	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA
Main/Unprotected Steel	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA
Main/Unprotected Steel	NA	NA	NA	5	NA	NA	NA	NA	NA	NA	NA	NA
Main/Vintage* Protected Steel	442	442	-	1	0	40	0.1139	0.0870	0.09050	0.09713	-	9
Main/Protected Steel	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA
Main/Protected Steel	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA
Main/Protected Steel	3,118	1,096	2,022	3	674	42	0.0129	0.0265	0.01347	0.01765	35.69	60
Main/Unknown	NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA
Service/Vintage* Plastic	1,230	1,230	-	1	0	31	0.0184	0.0313	0.02520	0.02495	-	26
Service/Plastic	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA
Service/Plastic	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA
Service/Plastic	3,078	868	2,210	3	737	7	0.0023	0.0026	0.00227	0.00242	5.35	14
Service/Unprotected Steel	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA
Service/Unprotected Steel	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA
Service/Unprotected Steel	NA	NA	NA	5	NA	NA	NA	NA	NA	NA	NA	NA
Service/Vintage* Protected Steel	277	277	-	1	0	31	0.2181	0.1517	0.11191	0.16059	-	30
Service/Protected Steel	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA
Service/Protected Steel	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA
Service/Protected Steel	2,529	1,089	1,439	3	480	80	0.0471	0.0789	0.03164	0.05253	75.60	128
Service/Copper	NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA
Service/Copper	NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA
Service/Copper	NA	NA	NA	5	NA	NA	NA	NA	NA	NA	NA	NA
Service/Unknown	NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA
Service/Copper	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	15,426	7,513	7,913	N/A	2,638	273				N/A	119	305

\*Definitions for "Vintage" materials:

Vintage Plastic Pipe installed before 1986 + "unknown" manufacture PE pipe

Vintage Protected Steel Pipe Installed before 1950

Estimated Emissions by Pipeline Facility/Material for Each Leakage Category						
Leakage Category	Emission Factor (Mscf/day/leak)	2023 Emissions from Leaks detected Prior to 2023 (Mscf)	2023 Emissions from Leaks Detected from 2023 Survey (Mscf)	2023 Emissions from O&M* Leaks Detected in 2023 (Mscf)	2023 Estimated Emissions from Unknown Leaks (Mscf)	Total Estimated 2023 Emissions from Distribution Pipelines (Mscf)
Facility/Material						
Main/Vintage* Plastic	0.1154	0	846	7	0	853
Main/Plastic	0.1154	NA	NA	NA	NA	NA
Main/Plastic	0.1154	NA	NA	NA	NA	NA
Main/Plastic	0.1154	0	56	1	97	155
Main/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Main/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Main/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Main/Vintage* Protected Steel	0.1154	0	787	10	0	796
Main/Protected Steel	0.1154	0	978	78	1,503	2,559
Main/Protected Steel	0.1154	NA	NA	NA	NA	NA
Main/Protected Steel	0.1154	NA	NA	NA	NA	NA
Main/Unknown	0.1154	NA	NA	NA	NA	NA
Service/Vintage* Plastic	0.1154	0	679	30	0	709
Service/Plastic	0.1154	NA	NA	NA	NA	NA
Service/Plastic	0.1154	NA	NA	NA	NA	NA
Service/Plastic	0.1154	0	130	5	225	361
Service/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Service/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Service/Unprotected Steel	0.1154	NA	NA	NA	NA	NA
Service/Vintage* Protected Steel	0.1154	2	625	14	0	642
Service/Protected Steel	0.1154	NA	NA	NA	NA	NA
Service/Protected Steel	0.1154	NA	NA	NA	NA	NA
Service/Protected Steel	0.1154	0	1,737	84	3,184	5,004
Service/Copper	0.1154	NA	NA	NA	NA	NA
Service/Copper	0.1154	NA	NA	NA	NA	NA
Service/Unknown	0.1154	NA	NA	NA	NA	NA
Service/Copper	0.1154	NA	NA	NA	NA	NA
Total	N/A	2	5,838	229	5,010	11,079

O&M leaks include any other pipeline leaks that are discovered during the year from operations and maintenance activity, third party and gas odor reports, etc. that are not accounted for in other categories of this worksheet.

The cells below should be used for calculating emissions when a risk based leak detection and repair practice is used by the Utility. This table is intended to help categorize emissions associated with large leaks (Super Emitters (SEs)), and non-large leaks (non-SEs).					
	2023 Emissions from Leaks detected Prior to 2023 (Mscf)	2023 Emissions from Leaks Detected from 2023 Survey (Mscf)	2023 Emissions from O&M* Leaks Detected in 2023 (Mscf)	2023 Estimated Emissions from Unknown Leaks (Mscf)	Total Estimated 2023 Emissions from Distribution Pipelines (Mscf)

Large Leak Emitter Program					
Compliance Leak Survey - Non-LL					-
Compliance Leak Survey - LL					-
Large Leak Emitter Program Outside Compliance Area - Non-LL					-
Large Leak Emitter Program Outside Compliance Area - LL					-
O&M - Non-LL					-
O&M - LL					-
TOTAL	-	-	-	-	-

Please Provide the following:	Total Count
The portion of the survey mileage that includes mileage that is surveyed multiple times per year. Repeated mileage will not be accounted for in the unknown leak calculation.	0

SDG&E, July 1st, 2024

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008, 2024 June Report

Appendix 4; Rev. 03/29/2024

This summary purposefully should exclude damages, blowdowns, component emissions and component leaks.

	Count of Leaks Carried over from Prior Year	Count of Leaks Discovered in the Year of Interest	Count of Leaks Repaired in the Year of Interest	Average Days to Repair Leaks	Count of Estimated Unsurveyed Leaks in the Year of Interest	Count of Remaining Leaks at final day of the Year of Interest (12/31/23)	Emissions from Leaks Carried over from Prior Year.	Emissions from Leaks Discovered in the Year of Interest.	Emissions from Estimated Unsurveyed Leaks in the Year of Interest	Total Emissions in the Year of Interest [Mscf of Natural Gas]
Grade 1	-	182	182	1	NA	-	-	801	NA	801
Grade 2	2	395	391	20	NA	6	2	5,224	NA	5,226
Grade 3	-	1	-	-	NA	1	-	42	NA	42
<b>Graded Leak Total</b>	<b>2</b>	<b>578</b>	<b>573</b>	<b>NA</b>	<b>-</b>	<b>7</b>	<b>2</b>	<b>6,067</b>	<b>-</b>	<b>6,070</b>
Above Ground Hazardous	0	0	0	0	0	0	0	0	NA	-
Above Ground Non-Hazardous	0	0	0	0	0	0	0	0	NA	-
Above Ground Non-Hazardous Minor	0	0	0	0	0	0	0	0	NA	-
AG Total	-	-	-	-	-	-	-	-	-	-
<b>Total of All Leaks</b>	<b>2</b>	<b>578</b>	<b>573</b>	<b>NA</b>	<b>-</b>	<b>7</b>	<b>2</b>	<b>6,067</b>	<b>-</b>	<b>6,070</b>
Main/Plastic	0	7	7	7	2	0	0	57	97	155
Main Vintage Plastic	0	73	71	7	0	2	0	853	0	853
Main/Unprotected Steel	0	0	0	NA	NA	0	NA	NA	NA	-
Main/Protected Steel	0	102	100	16	36	2	0	1,056	1,503	2,559
Main Vintage Protected Steel	0	49	49	27	0	0	0	796	0	796
Main Unknown	0	0	0	-	NA	0	NA	NA	NA	-
Service/Plastic	0	21	21	6	5	0	0	135	225	361
Service Vintage Plastic	0	57	56	11	0	1	0	709	0	709
Service/Unprotected Steel	0	0	0	NA	NA	0	NA	NA	NA	-
Service Vintage Steel	2	61	62	22	0	1	2	640	0	642
Service/Protected Steel	0	208	207	12	76	1	0	1,821	3,184	5,004
Service Unknown	0	0	0	-	NA	0	NA	NA	NA	-
Service/Copper	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>2</b>	<b>578</b>	<b>573</b>	<b>NA</b>	<b>119</b>	<b>7</b>	<b>2</b>	<b>6,067</b>	<b>5,010</b>	<b>11,079</b>

Large Leak or Super Emitter Program Categorization										
Compliance Leak Survey - Non-LL						0				0
Compliance Leak Survey - LL						0				0
Large Leak/Super Emitter Program Outside Compliance Area - Non-LL						0				0
Large Leak/Super Emitter Program Outside Compliance Area - LL						0				0
O&M - Non-LL						0				0
O&M - LL						0				0
<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Change Due to LL/SE Program on 2023:	(2)	(578)	(573)	#VALUE!	(119)	(7)	(2)	(6,067)	(5,010)	(11,079)
% Change Due to LL/SE Program on 2023:	(100.0%)	(100.0%)	(100.0%)		(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)	(100.0%)

This section added to the template for 2020 Reporting. Send any suggestions to improve this worksheet to Staff for consideration.

SD&GE, July 1st, 2024

Rulemaking (R) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

to Response to Data Request, R15-01-008, 2024 Rule Report

Appendix 4: Rule

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

Distribution Main & Service Pipeline Damage (3rd party dig-ins, natural disasters, etc.)

ID	Geographic Location	Damage Type	Pipe Classification	Pipe Material	Pipe Size (nominal)	Pipe Age (months)	Pressure (psi)	Leak Code	Above Ground or Below Ground	Discovery Date (MM/DD/YYYY)	Repair Date (MM/DD/YYYY)	Number of Data Linking	Emission Factor or Engineering Estimate (lbw/ft <sup>3</sup> /hr)	Annual Emissions (lbw/yr)	Explanatory Notes / Comments
2080445	02028	E	DR	P	1/2" CT5	439	Less than or equal to 60	1	0	9/12/2023	9/12/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2084015	02154	E	DR	P	1"	431	Less than or equal to 60	1	0	3/2/2023	3/2/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2077380	02159	E	DR	P	3/2" PS	787	Less than or equal to 60	1	0	1/27/2023	1/27/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2052525	02163	E	DR	P	1/2" CT5	707	Less than or equal to 60	1	0	11/20/2023	11/20/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2112306	02164	E	DR	P	1/4" PS	527	Less than or equal to 60	1	0	4/26/2023	4/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2077905	02209	O	DR	PC	3/4"	623	Less than or equal to 60	2	0	5/21/2023	5/22/2023	12	0.276	0.31	18.80 Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2127293	02277	E	DR	P	2"	782	Less than or equal to 60	1	0	12/20/2023	12/20/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2060551	02280	E	DR	P	1/2" PS	560	Less than or equal to 60	1	0	3/27/2023	3/27/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2070067	02118	E	DR	P	1/2" CT5	587	Less than or equal to 60	1	0	10/5/2023	10/5/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2084778	02144	E	DR	P	1/2" CT5	323	Less than or equal to 60	1	0	3/7/2023	3/7/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2060452	02150	E	DR	P	2"	587	Less than or equal to 60	1	0	10/2/2023	10/2/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2112739	02021	E	DR	P	1/2" CT5	599	Less than or equal to 60	1	0	6/9/2023	6/9/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2113309	02031	E	DR	P	1"	375	Less than or equal to 60	1	0	2/9/2023	2/9/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2124211	02037	E	DR	P	1/2" CT5	251	Less than or equal to 60	1	0	10/18/2023	10/18/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2078189	02177	E	DR	P	1/2" CT5	203	Less than or equal to 60	1	0	4/17/2023	4/17/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2114018	02181	O	DR	P	1/2" PS	44	Less than or equal to 60	1	0	7/9/2023	7/9/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2124337	02113	N	DR	P	1/2" PS	375	Less than or equal to 60	1	0	10/18/2023	10/18/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2117764	02081	E	DR	P	1/2" CT5	851	Less than or equal to 60	1	0	6/29/2023	6/29/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2042431	02024	E	MR	P	2"	611	Less than or equal to 60	1	0	11/20/2023	11/20/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2118577	02154	E	DR	P	1"	263	Less than or equal to 60	1	0	8/11/2023	8/11/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2054540	02034	E	DR	P	1"	263	Less than or equal to 60	1	0	12/1/2023	12/1/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2121262	02037	E	DR	P	1/2" CT5	331	Less than or equal to 60	1	0	10/26/2023	10/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2113309	01950	E	DR	P	3/4"	779	Less than or equal to 60	1	0	7/25/2023	7/25/2023	5	0.276	0.14	18.80 Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2117943	02032	E	DR	P	1/2" CT5	224	Less than or equal to 60	1	0	8/26/2023	8/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2112929	02130	E	MR	P	2"	27	Less than or equal to 60	1	0	10/21/2023	10/21/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2090902	02100	E	DR	P	3/4"	731	Less than or equal to 60	1	0	5/2/2023	5/2/2023	1	21.1	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2124236	02130	E	DR	P	1/2" CT5	650	Less than or equal to 60	1	0	9/25/2023	9/25/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2110091	02118	E	DR	P	1"	551	Less than or equal to 60	1	0	5/15/2023	5/15/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2112384	02100	E	DR	P	1/2" PS	387	Less than or equal to 60	1	0	4/12/2023	4/12/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2039446	02114	E	DR	P	1/2" CT5	93	Less than or equal to 60	1	0	10/9/2023	10/9/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2103525	02114	E	DR	PC	3/4"	779	Less than or equal to 60	1	0	8/12/2023	8/12/2023	1	21.1	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2113381	02031	E	DR	P	1/2" PS	470	Less than or equal to 60	1	0	4/26/2023	4/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2104044	02118	E	DR	P	1/2" CT5	407	Less than or equal to 60	1	0	9/2/2023	9/2/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2110513	02076	E	DR	P	1/2" PS	470	Less than or equal to 60	1	0	4/17/2023	4/17/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2086809	02110	E	DR	P	1/2" PS	564	Less than or equal to 60	1	0	2/7/2023	2/7/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2110013	02031	E	DR	P	1/2" PS	563	Less than or equal to 60	1	0	11/1/2023	11/1/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2127764	02039	E	DR	P	1/2" PS	151	Less than or equal to 60	1	0	11/1/2023	11/1/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2100706	02100	E	DR	P	1/2" CT5	574	Less than or equal to 60	1	0	9/26/2023	9/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2117271	02180	E	DR	P	1/2" CT5	515	Less than or equal to 60	1	0	8/22/2023	8/22/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2050437	02114	E	DR	PC	3/4"	851	Less than or equal to 60	2	0	4/20/2023	4/20/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2105724	02141	E	DR	PC	3/4"	779	Less than or equal to 60	1	0	8/2/2023	8/2/2023	1	21.1	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2105845	02021	N	DR	P	1/2" PS	480	Less than or equal to 60	1	0	4/17/2023	4/17/2023	1	0.276	0.21	18.80 Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2118924	02128	N	DR	P	1/4"	453	Less than or equal to 60	1	0	9/4/2023	9/4/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2125206	02094	E	DR	P	1"	8	Less than or equal to 60	1	0	12/5/2023	12/5/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2112480	02021	E	MR	PC	2"	755	Less than or equal to 60	1	0	4/26/2023	4/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2124514	02124	O	MR	P	3"	35	Less than or equal to 60	2	0	7/13/2023	7/13/2023	6	0.288	0.30	18.80 Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2127362	02124	E	DR	P	1/2" PS	421	Less than or equal to 60	1	0	10/17/2023	10/17/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2081788	02036	E	DR	PC	3/4"	995	Less than or equal to 60	1	0	1/26/2023	1/26/2023	1	21.1	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2104042	02077	E	DR	PC	3/4"	851	Less than or equal to 60	1	0	1/30/2023	1/30/2023	1	0.276	0.13	18.80 Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.
2122778	02058	E	DR	P	1"	2	Less than or equal to 60	1	0	10/26/2023	10/26/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2110013	02031	E	DR	P	1/2" PS	470	Less than or equal to 60	1	0	4/17/2023	4/17/2023	1	21.1	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2119763	02027	E	DR	P	1/2" CT5	515	Less than or equal to 60	1	0	6/9/2023	6/9/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2080919	02177	E	DR	P	1"	895	Less than or equal to 60	1	0	12/7/2023	12/7/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2121262	01950	E	DR	P	1"	18	Less than or equal to 60	1	0	4/12/2023	4/12/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2111086	02126	E	DR	P	1/2" CT5	629	Less than or equal to 60	1	0	6/9/2023	6/9/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2115317	02000	E	DR	P	1/2" PS	375	Less than or equal to 60	1	0	7/6/2023	7/6/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2104114	02116	E	DR	P	1/2" PS	420	Less than or equal to 60	1	0	12/4/2023	12/4/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2086029	02115	E	DR	PC	3/4"	847	Less than or equal to 60	1	0	3/25/2023	3/25/2023	1	21.1	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2118273	02055	E	DR	P	1/4"	443	Less than or equal to 60	1	0	4/12/2023	4/12/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2104555	02100	E	DR	P	1/2" CT5	437	Less than or equal to 60	1	0	12/17/2023	12/17/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2061219	02200	E	DR	P	1"	551	Less than or equal to 60	1	0	12/12/2023	12/12/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2081244	02037	E	DR	P	1/2" CT5	583	Less than or equal to 60	1	0	2/13/2023	2/13/2023	1	18.80	Emission estimated from population of similar events. See Explanatory Notes/Comments for Distribution Pipeline All Damages in Appendix 9.	
2104713	02106	E	DR	P	1/2" PS	515									

Sum Total	6.707
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## SDG&amp;E, July 1st, 2024

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

In Response to Data Request, R15-01-008 2024 June Report

Appendix 4; Rev. 03/29/2024

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

## Distribution Main &amp; Service Pipeline Blowdowns:

ID	Geographic Location	Number of Blowdown Events	Pipe Size (nominal) (inches)	Length of Pipe (feet)	Pressure (psi)	Annual Emissions (Mscf)	Explanatory Notes / Comments
N/A	SDG&E Territory	256	N/A	N/A	N/A	0.69	Distribution Odor intensity Tests
N/A	SDG&E Territory	1	6"	36	320	0.18	ABANDONED HP MAIN PIPE
N/A	SDG&E Territory	1	1"	1708	55	0.05	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1 1/4"	194	55	0.01	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1 1/2"	4548	55	0.30	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	2"	12224	55	1.35	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	3"	79	55	0.02	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	4"	1592	55	0.70	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	6"	284	55	0.29	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	10"	16	55	0.04	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1"	3	55	0.00	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	1 1/4"	9219	55	0.41	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	2"	169330	55	16.27	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	3"	37190	55	7.93	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	4"	574	55	0.22	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	6"	218	55	0.18	ABANDONED MP MAIN PIPE
N/A	SDG&E Territory	1	3/4"	40049	55	0.60	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1"	1502	55	0.04	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1 1/4"	226	55	0.01	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1 1/2"	143	55	0.01	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	2"	80	55	0.01	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	2 1/2"	315	55	0.05	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	4"	40	55	0.02	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1/2"	158860	55	0.78	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1"	6206	55	0.18	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	1 1/4"	4469	55	0.20	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	2"	879	55	0.08	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	3"	863	55	0.18	ABANDONED MP SERVICE PIPE
N/A	SDG&E Territory	1	4"	26	55	0.01	ABANDONED MP SERVICE PIPE
BD-23-2	SDG&E Territory	1	20"	32.21	400	0.00	Distribution blowdown
BD-23-4	SDG&E Territory	1	20"	5702.4	400	3.68	Distribution blowdown
BD-23-5	SDG&E Territory	1	20"	32	400	0.00	Distribution blowdown
BD-23-7	SDG&E Territory	1	12"	6864	60	2.02	Distribution blowdown
BD-23-10	SDG&E Territory	1	20"	32	400	0.00	Distribution blowdown
BD-23-12	SDG&E Territory	1	20"	52.8	400	0.00	Distribution blowdown
BD-23-26	SDG&E Territory	1	20"	8025.6	301	5.65	Distribution Blowdown
BD-23-17	SDG&E Territory	1	16"	1742.4	350	0.02	Distribution Blowdown
			5' of 20"	5' of 20"			
BD-23-24	SDG&E Territory	24	24' of 24"	24' of 24"	320	3.23	Distribution Blowdown
BD-23-25	SDG&E Territory	5	18	18	320	0.94	Distribution Blowdown
BD-23-8	SDG&E Territory	1	20	7,603	320	5.14	Distribution Blowdown
Sum Total						51	



**SDG&E, July 1st, 2024**  
**Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce**  
**Natural Gas Leaks Consistent with Senate Bill 1371, Leno.**  
**In Response to Data Request, R15-01-008 2024 June Report**  
**Appendix 4; Rev. 03/29/2024**

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

The emissions captured on this tab represent the emissions associated with the operational design and function of the component. Any intentional release of natural gas for safety or maintenance purposes should be included on the Blowdowns worksheet.

**Distribution Main & Service Pipeline Component Vented Emissions (see note above):**

Total Number of Devices	Device Type	Bleed Rate	Manufacturer	Engineering or Manufacturer's based Estimate of Emissions	Annual Emissions (Mscf)	Explanatory Notes / Comments
Sum Total					0	

Rulemaking (R.) 15-01-008 to Adopt Rules and Procedures Governing Commission Regulated Natural Gas Pipelines and Facilities to Reduce Natural Gas Leaks Consistent with Senate Bill 1371, Leno.

Notes:

Use a formula-derived value with the formula used in the Annual Emissions column. Do not use a copy and paste-as-value.

At the end of Annual Emissions Column, add a summation total in a cell for a column total, and then highlight orange.

The emissions captured on this tab represent the emissions associated unintentional leaks that if repaired would not leaking. If the component is releasing gas or "bleeding" as a result of its design or function then it is not to be

Total Number of Devices	Device Type	Bleed Rate	Manufacturer	Discovery Date (MM/DD/YY)	Repair Date (MM/DD/YY)	Number of Days Leaking	Emission Factor (Mscf/day)	Annual Emission (Mscf)	Explanatory Notes / Comments
							Sum Total	0	

Appendix 4; Rev. 03/29/2024

Header column "Comment" boxes displayed below for reference.	
Column Heading	Description and Definition of Required Contents (IF not self-explanatory)
Pipeline Leaks	
<b>ID</b>	
<b>Geographic Location</b>	GIS, zip code, or equivalent
<b>Pipe Classification</b>	MA = distribution main, above ground MB = distribution main, below ground DA = distribution service, above ground DB = distribution service, below ground
<b>Pipe Material</b>	C = copper CI = cast iron P = plastics (Acetyl, ABS, PE, PVC, etc.) PB = cathodically protected steel, bare PC = cathodically protected steel, coated UB = unprotected steel, bare UC = unprotected steel, coated
<b>Pipe Size (nominal)</b>	
<b>Pipe Age (months)</b>	
<b>Pressure (psi)</b>	MOP = maximum operating pressure over the past year
<b>Leak Grade</b>	If the utility uses grades for above ground leaks, it is unnecessary to use the AH,AN, or AM designations.  1 = grade 1 2 = grade 2 2+ = grade 2+ 3 = grade 3 AH = Above Ground Hazardous synonymous with Grade 1. AN = Above Ground Non-Hazardous, synonymous with Grade 2 and 2+. AM = Above Ground Non-Hazardous Minor (akin to grade 3 below ground leak). N = non-graded or ungraded
<b>Upgraded Leak Grade or Downgraded Leak Grade</b>	U: Upgraded Leak such as a grade 2 or 3 leak that was surveyed again and changed designation to grade 1 or 2.  D: downgraded leak, such as a grade 1 or 2 leak that was surveyed again and changed designation to grade 2 or 3.
<b>Above Ground or Below Ground</b>	A = Above Ground B = below ground

<b>Leak Discovery Method</b>	<p>S = Routine Leak Survey (This discovery method should be parsed and the emissions summarized into leaks carried over from before 2016, and those detected in 2016. The totals for these subcategories should be carried over to column C43 through D63 on the Unsurveyed Pipeline Leaks tab.)</p> <p>M = O&amp;M (E.G. O&amp;M Activities, Third party reports, customer odor reports etc.)</p> <p>O = Other (This will be grouped with M in the summary categorization of leaks.)</p>
<b>Discovery Date (MM/DD/YY)</b>	
<b>Re-Grade Date (MM/DD/YY)</b>	
<b>Repair Date (MM/DD/YY)</b>	Date that the pipeline repair stopped the leak. Any associated blowdowns resulting from the repair should be included in the blowdowns tab.
<b>Scheduled Repair Date (MM/DD/YY)</b>	<p>If leak is open, specify the scheduled date of repair;</p> <p>Otherwise type "M," signifying that the leak is being monitored with no scheduled date of repair;</p> <p>Then, provide the reason for not scheduling a repair in Column P.</p>
<b>Reason for Not Scheduling a Repair</b>	If Repair Date is blank, and Scheduled Repair Date (Column O) = "M", then provide the reason for not scheduling a repair.
<b>Number of Days Leaking</b>	<p>If the leak was discovered by survey in the year of interest, then assume leaking from January 1st of subject year <u>thru</u> repair date or December 31st of subject year, whichever is earlier. (E.G. Days Leaking = Repair - Jan 1st + 1 day.)</p> <p>(For days leaking for leaks carried over use January 1st as start date for emissions calculations.)</p> <p>For O&amp;M discovered leaks, assume that the leak begins with the discovery date <u>thru</u> repair date or December 31st of subject year, whichever is earlier.</p>
<b>Number of Days to Repair</b>	<p>Use only Repair-Discovery +1. Do not use January 1st for time to repair.</p> <p>For regraded leaks, use Repair Date - Regrade Date +1.</p>
<b>Emission Factor (Mscf/Day)</b>	
<b>Annual Emissions (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	
<b>Unknown Leaks</b>	
<b>Facility/Material</b>	
<b>Total System Miles per material type</b>	
<b>Miles on Annual Survey [<math>M_{X,A}</math>]</b>	

Miles on Multi-Year Survey Cycles [ $M_X^{Tot}$ ]	
Survey Interval (yrs) [ $I$ ]	
Miles Surveyed Annually from Multi-Year Survey Cycles [ $M_{X,I}$ ]	
Total # of Leaks Detected from Survey [ $N_{X,L}$ ]	
If using a 3-year trailing leak rate average then include - 2019 Annual Leak Rate  [ $R_{X,1}$ ]	
If using a 3-year trailing leak rate average then include - 2020 Annual Leak Rate  [ $R_{X,2}$ ]	
2022 Annual Leak Rate [ $R_{X,3}$ ]	$R_{X,3} = \frac{N_{X,L}}{M_{X,A} + (I \times M_{X,I})}$
If applicable, then calculate the 3-year Average Leak Rate [Leaks / Mile / Yr]	$\overline{R_X} = \frac{1}{3} \sum_{i=1}^3 R_{X,i}$
# of Unknown Leaks	$N_{X,unk} = \overline{R_X} \times (M_X^{Tot} - M_{X,I}) \times \frac{I}{2}$
Total # of Leaks Detected from O&M* [ $N_{X,O}$ ]	
<b>Pipeline Leaks Summary</b>	
Count of Leaks Carried over from Prior Year	Based on a leak start date prior to the first day of the year of interest.
Count of Leaks Discovered in the Year of Interest	The total number of leaks by grade or category discovered in the year of interest.  If a leak is downgraded to not leaking, do not count it.
Count of Leaks Repaired in the Year of Interest	

<b>Average Days to Repair Leaks</b>	The average days to repair leaks should be baase on the formula: (Repair Date/Time minus Discovery Date/Time) plus (one day, unless using a discrete time stamp for leak repairs), then take the sum and divide by number of leaks repaired by grade to get the average days to repair.
<b>Count of Estimated Unsurveyed Leaks in the Year of Interest</b>	For leaks identified in Unsurveyed areas extrapolate the proportion of leak counts by grade that were found in the respective areas based on the year or periods used to estimate the unsurveyed leak count.  If the unsurveyed leak count was based on the current year leak count by grade detected then use the current proportion of graded leak count applied to the unsurveyed leaks.
<b>Count of Remaining Leaks at final day of the Year of Interest (12/31/xx)</b>	This count is only of the actual leaks detected in the operator's system that have not been repaired as of 12/31 of the year of interest.
<b>Emissions from Leaks Carried over from Prior Year.</b>	Based on a leak start date prior to the first day of the year of interest.  This includes leaks discovered through O&M and survey activities.
<b>Emissions from Leaks Discovered in the Year of Interest.</b>	The total number of leaks by grade or category discovered in the year of interest.  This includes leaks discovered through O&M and survey activities.
<b>Emissions from Estimated Unsurveyed Leaks in the Year of Interest</b>	The emissions by grade would be on the same basis that used to extrapolate the count of leaks in the unsurveyed areas. For example: For leaks identified in Unsurveyed areas extrapolate the proportion of leak emissions by grade that were found in the respective areas based on the year or periods used to estimate the unsurveyed leak count.  If the unsurveyed leak count was based on the current year leaks detected then use the current proportion of graded leaks applied to the unsurveyed leak emissions.
<b>Total Emissions in the Year of Interest [Mscf of Natural Gas]</b>	
<b>All Damages</b>	
<b>ID</b>	
<b>Geographic Location</b>	GIS, zip code, or equivalent
<b>Damage Type</b>	E = excavation damage N = natural force damage O = other outside force damage
<b>Pipe Classification</b>	MA = distriibution main, above ground MB = distriibution main, below ground DA = distribution service, above ground DB = distribution service, below ground

<b>Pipe Material</b>	C = copper CI = cast iron P = plastics (Acetal, ABS, PE, PVC, etc.) PB = cathodically protected steel, bare PC = cathodically protected steel, coated UB = unprotected steel, bare UC = unptotected steel, coated
<b>Pipe Size (nominal)</b>	
<b>Pipe Age (months)</b>	
<b>Pressure (psi)</b>	MOP = maximum operating pressure over the past year
<b>Leak Grade</b>	1 = grade 1 2 = grade 2 2+ = grade 2+ 3 = grade 3 N = Non-Graded
<b>Above Ground or Below Ground</b>	AH = above ground, hazardous AN = above ground, non-hazardous B = below ground
<b>Discovery Date (MM/DD/YY)</b>	
<b>Repair Date (MM/DD/YY)</b>	
<b>Number of Days Leaking</b>	<p>If date and time stamp are reliable and used consistently by respondent, then emissions may be calculated based on actual time leaking. E.G. Repair time - damage event time = duration of event.</p> <p>If respondent has average or historical leak duration based on the nature and circumstances of damages, then these may be applied to like damage events. The emissions factors should be adequately supported and explained in the filing.</p> <p>If actual time stamps and historical averages are not available, then whole days should be used in the engineering calculation. The leak begins with the damage event date thru repair date or December 31st of subject year, whichever is later. E.G. Days Leaking = Repair date - date of damage + 1 day.</p>
<b>Emission Factor or Engineering Estimate (Mscf/Day)</b>	
<b>Annual Emissions (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	
<b>Blowdowns</b>	
<b>ID</b>	
<b>Geographic Location</b>	GIS, zip code, or equivalent

<b>Number of Blowdown Events</b>	If counting a series of small blowdowns associated with services such as MSA replacement, or Service pipe of small diameter or section length then enter total and the formula in the explanation column.
<b>Pipe Size (nominal)</b>	
<b>Length of Pipe</b>	
<b>Pressure (psi)</b>	MOP = maximum operating pressure over the past year
<b>Annual Emissions (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	
<b>Component Vented Emissions</b>	
<b>Total Number of Devices</b>	
<b>Device Type</b>	P = pneumatic device H = hydraulic valve operator T = turbine valve operator PR = pressure relief valve O = other devices
<b>Bleed Rate</b>	L = low bleed I = intermittent bleed H = high bleed NA = not applicable
<b>Manufacturer</b>	
<b>Engineering or Manufacturer's based Estimate of Emissions</b>	
<b>Annual Emissions (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	
<b>Component Fugitive Leaks</b>	
<b>Total Number of Devices</b>	
<b>Device Type</b>	P = pneumatic device H = hydraulic valve operator T = turbine valve operator PR = pressure relief valve O = other devices
<b>Bleed Rate</b>	L = low bleed I = intermittent bleed H = high bleed NA = not applicable
<b>Manufacturer</b>	
<b>Discovery Date (MM/DD/YY)</b>	List the actual discovery date.  If the leak was discovered in the year of interest, then we will assume the component was leaking from the beginning of the year for emissions reporting purposes.



<b>Repair Date (MM/DD/YY)</b>	Date that the component repair stopped the leak. Any associated blowdowns as a result of the repair should be included in the blowdowns tab.
<b>Number of Days Leaking</b>	Assume Leaking from January 1 of subject year or prior survey date, whichever is later, thru the repair date (if repaired in year of interest) or December 31 of subject year, whichever is earlier.  For O&M discovered leaks, assume that the leak begins with the discovery date <u>thru</u> repair date or December 31st of subject year, whichever is earlier.
<b>Emission Factor (Mscf/day)</b>	
<b>Annual Emission (Mscf)</b>	
<b>Explanatory Notes / Comments</b>	