

Northern Natural Gas Company

ACCOUNT NO. 351. Structures

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 35.0 YRS CURVE: IOWA R4 TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
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2002	0.50	111000.	28.3	3139285.
2001	1.50	61976.	28.0	1738027.
2000	2.50	0.	27.8	0.
1999	3.50	391801.	27.5	10756428.
1998	4.50	114002.	27.1	3088552.
1997	5.50	0.	26.7	0.
1996	6.50	0.	26.2	0.
1995	7.50	0.	25.7	0.
1994	8.50	0.	25.1	0.
1993	9.50	56950.	24.4	1392273.
1992	10.50	0.	23.7	0.
1991	11.50	131519.	23.0	3024801.
1990	12.50	0.	22.2	0.
1989	13.50	0.	21.4	0.
1988	14.50	12027.	20.5	246926.
1987	15.50	423056.	19.7	8317186.
1986	16.50	0.	18.8	0.
1985	17.50	8627.	17.9	154326.
1984	18.50	326188.	17.0	5546062.
1983	19.50	278164.	16.1	4485117.
1982	20.50	1082665.	15.3	16518702.
1981	21.50	313970.	14.4	4523284.
1980	22.50	6276587.	13.6	85201870.
1979	23.50	3911321.	12.8	49919074.
1978	24.50	1011536.	12.0	12110116.
1977	25.50	541242.	11.2	6063721.
1976	26.50	1452129.	10.5	15183919.
1975	27.50	266218.	9.7	2590444.
1974	28.50	422220.	9.0	3810573.
1973	29.50	185044.	8.3	1543100.
1972	30.50	21304.	7.7	163488.
1971	31.50	93016.	7.0	654511.
1970	32.50	509942.	6.4	3282106.
1969	33.50	63471.	5.9	373169.
1968	34.50	40067.	5.4	215118.
1967	35.50	24062.	4.9	118021.
1966	36.50	17184.	4.5	77058.
1965	37.50	33580.	4.1	137757.
1964	38.50	49111.	3.8	184347.
1963	39.50	61039.	3.4	209453.
1962	40.50	92067.	3.1	288155.

Northern Natural Gas Company

ACCOUNT NO.

351. Structures

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 35.0 YRS CURVE: IOWA

R4

TERMINAL DATE 12/31/2032

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I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
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1961	41.50	205865.	2.8	585430.
1960	42.50	62247.	2.6	159914.
1959	43.50	1117766.	2.3	2574004.
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TOTAL:		19768963.	12.6	248376316.
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Northern Natural Gas Company

ACCOUNT NO. 352. Wells

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 35.0 YRS CURVE: IOWA R4 TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR INSTALLED	AGE AT 12/31/02	ORIGINAL COST	AVERAGE REMAINING LIFE	WEIGHTED DOLLAR YEARS
2002	0.50	198740.	28.3	5620734.
2001	1.50	354241.	28.0	9934175.
2000	2.50	43239.	27.8	1200710.
1999	3.50	4406507.	27.5	120975380.
1998	4.50	25702.	27.1	696321.
1997	5.50	16503694.	26.7	440292426.
1996	6.50	0.	26.2	0.
1995	7.50	0.	25.7	0.
1994	8.50	0.	25.1	0.
1993	9.50	0.	24.4	0.
1992	10.50	21462.	23.7	509666.
1991	11.50	0.	23.0	0.
1990	12.50	485372.	22.2	10779295.
1989	13.50	0.	21.4	0.
1988	14.50	0.	20.5	0.
1987	15.50	0.	19.7	0.
1986	16.50	0.	18.8	0.
1985	17.50	0.	17.9	0.
1984	18.50	838404.	17.0	14255094.
1983	19.50	5537027.	16.1	89279039.
1982	20.50	2194202.	15.3	33477916.
1981	21.50	326165.	14.4	4698974.
1980	22.50	4137030.	13.6	56158338.
1979	23.50	3227992.	12.8	41197941.
1978	24.50	7050611.	12.0	84409965.
1977	25.50	2459404.	11.2	27553552.
1976	26.50	2161034.	10.5	22596453.
1975	27.50	3229405.	9.7	31423845.
1974	28.50	4220456.	9.0	38089992.
1973	29.50	548540.	8.3	4574329.
1972	30.50	105389.	7.7	808759.
1971	31.50	76617.	7.0	539119.
1970	32.50	481627.	6.4	3099864.
1969	33.50	864208.	5.9	5080989.
1968	34.50	792845.	5.4	4256755.
1967	35.50	540673.	4.9	2651933.
1966	36.50	262359.	4.5	1176486.
1965	37.50	37185.	4.1	152546.
1964	38.50	14404.	3.8	54068.
1963	39.50	148271.	3.4	508786.
1962	40.50	122032.	3.1	381941.

Northern Natural Gas Company

ACCOUNT NO. 352. Wells

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 35.0 YRS CURVE: IOWA R4 TERMINAL DATE 12/31/2032

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I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
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1961	41.50	4344182.	2.8	12353798.
1960	42.50	173403.	2.6	445477.
1959	43.50	5003307.	2.3	11521670.
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TOTAL:		70935729.	15.2	1080756334.
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Northern Natural Gas Company

ACCOUNT NO. 353. Lines

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 40.0 YRS CURVE: IOWA R4 TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR INSTALLED	AGE AT 12/31/02	ORIGINAL COST	AVERAGE REMAINING LIFE	WEIGHTED DOLLAR YEARS
2002	0.50	0.	28.8	0.
2001	1.50	1625962.	28.7	46665031.
2000	2.50	179122.	28.5	5113628.
1999	3.50	0.	28.4	0.
1998	4.50	227327.	28.2	6405080.
1997	5.50	127391.	28.0	3560638.
1996	6.50	140911.	27.7	3902587.
1995	7.50	0.	27.4	0.
1994	8.50	50803.	27.1	1375954.
1993	9.50	44368.	26.7	1185504.
1992	10.50	15021.	26.3	395226.
1991	11.50	692199.	25.9	17897667.
1990	12.50	8070.	25.4	204594.
1989	13.50	0.	24.8	0.
1988	14.50	154189.	24.2	3730987.
1987	15.50	0.	23.6	0.
1986	16.50	27794.	22.9	635397.
1985	17.50	135664.	22.1	3002874.
1984	18.50	1189395.	21.4	25424944.
1983	19.50	1395135.	20.6	28729193.
1982	20.50	2977705.	19.8	58925556.
1981	21.50	555456.	19.0	10537882.
1980	22.50	3003582.	18.1	54504049.
1979	23.50	2666485.	17.3	46179854.
1978	24.50	12695985.	16.5	209397755.
1977	25.50	673877.	15.7	10562690.
1976	26.50	608298.	14.9	9043281.
1975	27.50	2905724.	14.1	40890388.
1974	28.50	1368903.	13.3	18198580.
1973	29.50	223444.	12.5	2800638.
1972	30.50	4528.	11.8	53395.
1971	31.50	46719.	11.1	517124.
1970	32.50	197272.	10.4	2044385.
1969	33.50	1452799.	9.7	14055614.
1968	34.50	1109031.	9.0	9985823.
1967	35.50	120082.	8.4	1003326.
1966	36.50	8630.	7.7	66755.
1965	37.50	18990.	7.2	135780.
1964	38.50	20975.	6.6	138521.
1963	39.50	26140.	6.1	159432.
1962	40.50	49533.	5.6	279107.

Northern Natural Gas Company

ACCOUNT NO. 353. Lines

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 40.0 YRS CURVE: IOWA R4 TERMINAL DATE 12/31/2032

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I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
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1961	41.50	1614026.	5.2	8407057.
1960	42.50	41589.	4.8	200349.
1959	43.50	2183970.	4.5	9732596.
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TOTAL:		40587094.	16.2	656049240.
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Northern Natural Gas Company

ACCOUNT NO.

354. Compressor Station Equipment

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 32.0 YRS CURVE: IOWA

R3

TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR INSTALLED	AGE AT 12/31/02	ORIGINAL COST	AVERAGE REMAINING LIFE	WEIGHTED DOLLAR YEARS
2002	0.50	0.	26.8	0.
2001	1.50	784126.	26.4	20717604.
2000	2.50	136755.	26.0	3557264.
1999	3.50	6818.	25.6	174287.
1998	4.50	100048.	25.1	2508554.
1997	5.50	237686.	24.5	5833645.
1996	6.50	222103.	24.0	5324514.
1995	7.50	573728.	23.4	13404640.
1994	8.50	152143.	22.7	3456487.
1993	9.50	175936.	22.0	3877593.
1992	10.50	542632.	21.3	11575289.
1991	11.50	91385.	20.6	1882405.
1990	12.50	162831.	19.8	3231449.
1989	13.50	569013.	19.1	10855241.
1988	14.50	246012.	18.3	4501678.
1987	15.50	232622.	17.5	4074182.
1986	16.50	80355.	16.7	1344197.
1985	17.50	145426.	15.9	2318750.
1984	18.50	224475.	15.2	3404498.
1983	19.50	747082.	14.4	10756165.
1982	20.50	30693.	13.6	418671.
1981	21.50	86423.	12.9	1114739.
1980	22.50	6080148.	12.2	74017307.
1979	23.50	7170798.	11.5	82233960.
1978	24.50	231528.	10.8	2496654.
1977	25.50	38514.	10.1	389818.
1976	26.50	612161.	9.5	5805481.
1975	27.50	22429.	8.9	198968.
1974	28.50	56184.	8.3	465517.
1973	29.50	288932.	7.7	2232931.
1972	30.50	11726.	7.2	84426.
1971	31.50	144311.	6.7	967050.
1970	32.50	72465.	6.2	451616.
1969	33.50	52137.	5.8	302030.
1968	34.50	15057.	5.4	81048.
1967	35.50	0.	5.0	0.
1966	36.50	83818.	4.6	389299.
1965	37.50	27763.	4.3	119724.
1964	38.50	83037.	4.0	332269.
1963	39.50	406345.	3.7	1506924.
1962	40.50	377046.	3.4	1293255.

Northern Natural Gas Company

ACCOUNT NO.

354. Compressor Station Equipment

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 32.0 YRS CURVE: IOWA

R3

TERMINAL DATE 12/31/2032

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I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
-----	-----	-----	-----	-----
1961	41.50	0.	3.2	0.
1960	42.50	384080.	2.9	1114553.
1959	43.50	1025348.	2.6	2712759.
1958	44.50	0.	2.4	0.
1957	45.50	0.	2.1	0.
1956	46.50	165.	1.9	310.
1955	47.50	82.	1.6	134.
1954	48.50	167.	1.4	231.
1953	49.50	0.	1.1	0.
1952	50.50	0.	0.9	0.
1951	51.50	0.	0.6	0.
1950	52.50	1890.	0.2	425.
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TOTAL:		22734423.	12.8	291528540.
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Northern Natural Gas Company

ACCOUNT NO.

355. Measuring and Regulating Equipme

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 32.0 YRS CURVE: IOWA

R2

TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
				YEARS
2002	0.50	18700.	25.6	478991.
2001	1.50	0.	25.3	0.
2000	2.50	37469.	24.9	934346.
1999	3.50	683242.	24.6	16784104.
1998	4.50	215428.	24.2	5207393.
1997	5.50	0.	23.8	0.
1996	6.50	0.	23.3	0.
1995	7.50	0.	22.9	0.
1994	8.50	27377.	22.4	612628.
1993	9.50	3500.	21.9	76561.
1992	10.50	74881.	21.4	1598794.
1991	11.50	0.	20.8	0.
1990	12.50	11079.	20.2	224338.
1989	13.50	0.	19.7	0.
1988	14.50	4356.	19.1	83128.
1987	15.50	340622.	18.5	6295386.
1986	16.50	0.	17.9	0.
1985	17.50	68775.	17.3	1186551.
1984	18.50	457019.	16.6	7599960.
1983	19.50	616735.	16.0	9870157.
1982	20.50	217400.	15.4	3343232.
1981	21.50	613988.	14.8	9059318.
1980	22.50	4435862.	14.1	62705461.
1979	23.50	1426745.	13.5	19294958.
1978	24.50	1298514.	12.9	16777276.
1977	25.50	664082.	12.3	8186624.
1976	26.50	862413.	11.7	10131453.
1975	27.50	329060.	11.2	3679763.
1974	28.50	142313.	10.6	1513356.
1973	29.50	7069.	10.1	71418.
1972	30.50	218827.	9.6	2098661.
1971	31.50	3664.	9.1	33330.
1970	32.50	3625.	8.6	31252.
1969	33.50	18352.	8.2	149836.
1968	34.50	10154.	7.7	78452.
1967	35.50	21399.	7.3	156337.
1966	36.50	1191.	6.9	8222.
1965	37.50	10033.	6.5	65385.
1964	38.50	7718.	6.1	47442.
1963	39.50	7411.	5.8	42923.
1962	40.50	0.	5.5	0.

Northern Natural Gas Company

ACCOUNT NO.

355. Measuring and Regulating Equipme

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 32.0 YRS CURVE: IOWA

R2

TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR INSTALLED	AGE AT 12/31/02	ORIGINAL COST	AVERAGE REMAINING LIFE	WEIGHTED DOLLAR YEARS
1961	41.50	161219.	5.1	825603.
1960	42.50	15760.	4.8	75686.
1959	43.50	228161.	4.5	1025174.
1958	44.50	9790.	4.2	41025.
1957	45.50	0.	3.9	0.
1956	46.50	1108.	3.6	3988.
1955	47.50	443.	3.3	1465.
1954	48.50	0.	3.0	0.
1953	49.50	337.	2.7	919.
TOTAL:		13275821.	14.3	190400894.

Northern Natural Gas Company

ACCOUNT NO.

356. Purification Equipment

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 30.0 YRS CURVE: IOWA

R2

TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
				YEARS
2002	0.50	0.	25.1	0.
2001	1.50	0.	24.7	0.
2000	2.50	0.	24.3	0.
1999	3.50	207265.	23.8	4936903.
1998	4.50	167458.	23.4	3911239.
1997	5.50	154764.	22.9	3539377.
1996	6.50	0.	22.4	0.
1995	7.50	0.	21.8	0.
1994	8.50	0.	21.3	0.
1993	9.50	0.	20.7	0.
1992	10.50	0.	20.1	0.
1991	11.50	0.	19.5	0.
1990	12.50	47441.	18.9	894689.
1989	13.50	4385.	18.2	79902.
1988	14.50	70803.	17.6	1244446.
1987	15.50	1161880.	16.9	19664055.
1986	16.50	8321.	16.3	135375.
1985	17.50	0.	15.6	0.
1984	18.50	132244.	15.0	1978344.
1983	19.50	425240.	14.3	6085280.
1982	20.50	145527.	13.7	1989101.
1981	21.50	469493.	13.0	6120035.
1980	22.50	7948976.	12.4	98679504.
1979	23.50	2480791.	11.8	29291493.
1978	24.50	697971.	11.2	7828561.
1977	25.50	624537.	10.6	6646750.
1976	26.50	3317169.	10.1	33465673.
1975	27.50	135054.	9.6	1290290.
1974	28.50	1373521.	9.0	12414708.
1973	29.50	57382.	8.5	490250.
1972	30.50	0.	8.1	0.
1971	31.50	16030.	7.6	122034.
1970	32.50	55700.	7.2	399766.
1969	33.50	387927.	6.8	2622512.
1968	34.50	96505.	6.4	613979.
1967	35.50	171523.	6.0	1025982.
1966	36.50	98510.	5.6	553401.
1965	37.50	156414.	5.3	824207.
1964	38.50	0.	4.9	0.
1963	39.50	905.	4.6	4174.
1962	40.50	2560.	4.3	11008.

Northern Natural Gas Company

ACCOUNT NO. 356. Purification Equipment

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 30.0 YRS CURVE: IOWA R2 TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR INSTALLED	AGE AT 12/31/02	ORIGINAL COST	AVERAGE REMAINING LIFE	WEIGHTED DOLLAR YEARS
1961	41.50	808451.	4.0	3229802.
1960	42.50	8439.	3.7	31197.
1959	43.50	542942.	3.4	1848022.
1958	44.50	0.	3.1	0.
1957	45.50	0.	2.8	0.
1956	46.50	0.	2.5	0.
1955	47.50	0.	2.2	0.
1954	48.50	0.	2.0	0.
1953	49.50	0.	1.7	0.
1952	50.50	0.	1.4	0.
1951	51.50	0.	1.1	0.
1950	52.50	48566.	0.8	37335.
TOTAL:		22024694.	11.4	252009394.

Northern Natural Gas Company

ACCOUNT NO.

361. Structures

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 30.0 YRS CURVE: IOWA

R2

TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
				YEARS
2002	0.50	0.	25.1	0.
2001	1.50	162974.	24.7	4020562.
2000	2.50	0.	24.3	0.
1999	3.50	0.	23.8	0.
1998	4.50	0.	23.4	0.
1997	5.50	0.	22.9	0.
1996	6.50	0.	22.4	0.
1995	7.50	0.	21.8	0.
1994	8.50	0.	21.3	0.
1993	9.50	0.	20.7	0.
1992	10.50	0.	20.1	0.
1991	11.50	5360898.	19.5	104453678.
1990	12.50	0.	18.9	0.
1989	13.50	0.	18.2	0.
1988	14.50	0.	17.6	0.
1987	15.50	0.	16.9	0.
1986	16.50	0.	16.3	0.
1985	17.50	0.	15.6	0.
1984	18.50	0.	15.0	0.
1983	19.50	0.	14.3	0.
1982	20.50	1209630.	13.7	16533537.
1981	21.50	7045.	13.0	91834.
1980	22.50	3065.	12.4	38049.
1979	23.50	352362.	11.8	4160451.
1978	24.50	2982.	11.2	33447.
1977	25.50	78255.	10.6	832843.
1976	26.50	0.	10.1	0.
1975	27.50	2406706.	9.6	22993386.
TOTAL:		9583917.	16.0	153157788.

Northern Natural Gas Company

ACCOUNT NO.

362. Gas Holders

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 30.0 YRS CURVE: IOWA

R2

TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR INSTALLED	AGE AT 12/31/02	ORIGINAL COST	AVERAGE REMAINING LIFE	WEIGHTED DOLLAR YEARS
2002	0.50	0.	25.1	0.
2001	1.50	0.	24.7	0.
2000	2.50	0.	24.3	0.
1999	3.50	0.	23.8	0.
1998	4.50	0.	23.4	0.
1997	5.50	0.	22.9	0.
1996	6.50	0.	22.4	0.
1995	7.50	0.	21.8	0.
1994	8.50	0.	21.3	0.
1993	9.50	0.	20.7	0.
1992	10.50	0.	20.1	0.
1991	11.50	12871730.	19.5	250797449.
1990	12.50	0.	18.9	0.
1989	13.50	0.	18.2	0.
1988	14.50	0.	17.6	0.
1987	15.50	17039.	16.9	288374.
1986	16.50	0.	16.3	0.
1985	17.50	0.	15.6	0.
1984	18.50	0.	15.0	0.
1983	19.50	0.	14.3	0.
1982	20.50	0.	13.7	0.
1981	21.50	0.	13.0	0.
1980	22.50	0.	12.4	0.
1979	23.50	0.	11.8	0.
1978	24.50	0.	11.2	0.
1977	25.50	56304.	10.6	599226.
1976	26.50	0.	10.1	0.
1975	27.50	7340532.	9.6	70130579.
TOTAL:		20285605.	15.9	321815627.

Northern Natural Gas Company

ACCOUNT NO. 3630. Purification Equipment

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 25.0 YRS CURVE: IOWA R3 TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
				YEARS
2002	0.50	160000.	23.7	3797182.
2001	1.50	288677.	23.0	6631761.
2000	2.50	21230.	22.2	470681.
1999	3.50	207265.	21.3	4421662.
1998	4.50	2757099.	20.5	56436669.
1997	5.50	0.	19.6	0.
1996	6.50	0.	18.7	0.
1995	7.50	0.	17.8	0.
1994	8.50	0.	16.9	0.
1993	9.50	0.	16.0	0.
1992	10.50	20809.	15.1	315169.
1991	11.50	1215311.	14.3	17364595.
1990	12.50	0.	13.4	0.
1989	13.50	0.	12.6	0.
1988	14.50	0.	11.8	0.
1987	15.50	0.	11.1	0.
1986	16.50	0.	10.3	0.
1985	17.50	36313.	9.6	347420.
1984	18.50	0.	8.9	0.
1983	19.50	0.	8.2	0.
1982	20.50	54425.	7.5	410246.
1981	21.50	0.	6.9	0.
1980	22.50	0.	6.3	0.
1979	23.50	0.	5.8	0.
1978	24.50	0.	5.3	0.
1977	25.50	6111.	4.8	29469.
1976	26.50	66096.	4.4	290288.
1975	27.50	1189503.	4.0	4755911.
TOTAL:		6022839.	15.8	95271052.

Northern Natural Gas Company

ACCOUNT NO. 3631. Liquidfaction Equipment

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 25.0 YRS CURVE: IOWA R3 TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR INSTALLED	AGE AT 12/31/02	ORIGINAL COST	AVERAGE REMAINING LIFE	WEIGHTED DOLLAR YEARS
2002	0.50	0.	23.7	0.
2001	1.50	0.	23.0	0.
2000	2.50	0.	22.2	0.
1999	3.50	4468869.	21.3	95336063.
1998	4.50	0.	20.5	0.
1997	5.50	335.	19.6	6562.
1996	6.50	0.	18.7	0.
1995	7.50	0.	17.8	0.
1994	8.50	0.	16.9	0.
1993	9.50	0.	16.0	0.
1992	10.50	0.	15.1	0.
1991	11.50	2821569.	14.3	40315115.
1990	12.50	0.	13.4	0.
1989	13.50	0.	12.6	0.
1988	14.50	0.	11.8	0.
1987	15.50	0.	11.1	0.
1986	16.50	0.	10.3	0.
1985	17.50	0.	9.6	0.
1984	18.50	0.	8.9	0.
1983	19.50	0.	8.2	0.
1982	20.50	0.	7.5	0.
1981	21.50	0.	6.9	0.
1980	22.50	0.	6.3	0.
1979	23.50	0.	5.8	0.
1978	24.50	0.	5.3	0.
1977	25.50	2631.	4.8	12688.
1976	26.50	0.	4.4	0.
1975	27.50	1248252.	4.0	4990803.
TOTAL:		8541656.	16.5	140661231.



Northern Natural Gas Company

ACCOUNT NO. 3632. Vaporizing Equipment

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 25.0 YRS CURVE: IOWA R3 TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR INSTALLED	AGE AT 12/31/02	ORIGINAL COST	AVERAGE REMAINING LIFE	WEIGHTED DOLLAR YEARS
2002	0.50	0.	23.7	0.
2001	1.50	0.	23.0	0.
2000	2.50	0.	22.2	0.
1999	3.50	0.	21.3	0.
1998	4.50	0.	20.5	0.
1997	5.50	0.	19.6	0.
1996	6.50	0.	18.7	0.
1995	7.50	0.	17.8	0.
1994	8.50	0.	16.9	0.
1993	9.50	0.	16.0	0.
1992	10.50	0.	15.1	0.
1991	11.50	1248278.	14.3	17835634.
1990	12.50	0.	13.4	0.
1989	13.50	0.	12.6	0.
1988	14.50	0.	11.8	0.
1987	15.50	0.	11.1	0.
1986	16.50	0.	10.3	0.
1985	17.50	0.	9.6	0.
1984	18.50	0.	8.9	0.
1983	19.50	0.	8.2	0.
1982	20.50	0.	7.5	0.
1981	21.50	0.	6.9	0.
1980	22.50	0.	6.3	0.
1979	23.50	0.	5.8	0.
1978	24.50	0.	5.3	0.
1977	25.50	0.	4.8	0.
1976	26.50	0.	4.4	0.
1975	27.50	815720.	4.0	3261439.
TOTAL:		2063998.	10.2	21097073.

Northern Natural Gas Company

ACCOUNT NO. 3633. Compressor Equipment

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 25.0 YRS CURVE: IOWA R2 TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR INSTALLED	AGE AT 12/31/02	ORIGINAL COST	AVERAGE REMAINING LIFE	WEIGHTED DOLLAR YEARS
2002	0.50	0.	23.0	0.
2001	1.50	0.	22.4	0.
2000	2.50	42972.	21.8	934783.
1999	3.50	0.	21.1	0.
1998	4.50	57950.	20.4	1183478.
1997	5.50	108158.	19.7	2133400.
1996	6.50	82304.	19.0	1564674.
1995	7.50	0.	18.3	0.
1994	8.50	68775.	17.5	1206958.
1993	9.50	73005.	16.8	1227174.
1992	10.50	19431.	16.1	312235.
1991	11.50	7546581.	15.3	115696220.
1990	12.50	34187.	14.6	499098.
1989	13.50	0.	13.9	0.
1988	14.50	0.	13.2	0.
1987	15.50	0.	12.5	0.
1986	16.50	0.	11.8	0.
1985	17.50	4879.	11.1	54358.
1984	18.50	0.	10.5	0.
1983	19.50	2562.	9.9	25342.
1982	20.50	34072.	9.3	316836.
1981	21.50	0.	8.7	0.
1980	22.50	0.	8.2	0.
1979	23.50	1675.	7.7	12831.
1978	24.50	17841.	7.2	127763.
1977	25.50	99737.	6.7	666864.
1976	26.50	162714.	6.2	1014508.
1975	27.50	5992761.	5.8	34799985.
1974	28.50	0.	5.4	0.
1973	29.50	0.	5.0	0.
1972	30.50	1414.	4.7	6581.
TOTAL:		14351018.	11.3	161783087.

Northern Natural Gas Company

ACCOUNT NO. 367. Total Mains - Onshore

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 66.0 YRS CURVE: IOWA R1 TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
				YEARS
2002	0.50	35579326.	27.4	976138280.
2001	1.50	46099865.	27.4	1262734019.
2000	2.50	24435085.	27.3	668208309.
1999	3.50	7644102.	27.3	208690148.
1998	4.50	29016337.	27.3	790825393.
1997	5.50	4986575.	27.2	135672939.
1996	6.50	22214277.	27.2	603335062.
1995	7.50	1920993.	27.1	52080083.
1994	8.50	28270830.	27.1	765047369.
1993	9.50	20530571.	27.0	554544527.
1992	10.50	27917766.	27.0	752625177.
1991	11.50	47021930.	26.9	1265150526.
1990	12.50	7446401.	26.9	199944392.
1989	13.50	8006116.	26.8	214525007.
1988	14.50	14413300.	26.7	385377354.
1987	15.50	2377843.	26.7	63437404.
1986	16.50	800445.	26.6	21305799.
1985	17.50	5795053.	26.6	153884297.
1984	18.50	2500791.	26.5	66243752.
1983	19.50	11611423.	26.4	306795903.
1982	20.50	33501761.	26.4	882844036.
1981	21.50	14005479.	26.3	368062969.
1980	22.50	10321758.	26.2	270480983.
1979	23.50	8025333.	26.1	209682070.
1978	24.50	5212183.	26.0	135762349.
1977	25.50	3970098.	26.0	103080225.
1976	26.50	5205898.	25.9	134719321.
1975	27.50	5759861.	25.8	148543270.
1974	28.50	5494748.	25.7	141200546.
1973	29.50	4323511.	25.6	110692867.
1972	30.50	4646531.	25.5	118508262.
1971	31.50	6392362.	25.4	162390132.
1970	32.50	5704662.	25.3	144326207.
1969	33.50	19170582.	25.2	482957943.
1968	34.50	22595995.	25.1	566758389.
1967	35.50	21480080.	25.0	536337593.
1966	36.50	43233253.	24.9	1074449342.
1965	37.50	25212310.	24.7	623565752.
1964	38.50	16861690.	24.6	414963594.
1963	39.50	13427126.	24.5	328746805.
1962	40.50	4294769.	24.4	104597033.

Northern Natural Gas Company

ACCOUNT NO. 367. Total Mains - Onshore

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 66.0 YRS CURVE: IOWA R1 TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
				YEARS
1961	41.50	24862930.	24.2	602230723.
1960	42.50	20298126.	24.1	488911952.
1959	43.50	38649631.	23.9	925555733.
1958	44.50	5033478.	23.8	119825093.
1957	45.50	10535370.	23.7	249267875.
1956	46.50	7477279.	23.5	175804691.
1955	47.50	2842101.	23.4	66390457.
1954	48.50	39438447.	23.2	915163987.
1953	49.50	23755476.	23.0	547476486.
1952	50.50	4368319.	22.9	99968061.
1951	51.50	10362507.	22.7	235433873.
1950	52.50	14739148.	22.6	332393093.
1949	53.50	9323696.	22.4	208663745.
1948	54.50	3144137.	22.2	69816433.
1947	55.50	3176941.	22.0	69977308.
1946	56.50	6496973.	21.8	141927153.
1945	57.50	2041452.	21.7	44218204.
1944	58.50	641939.	21.5	13783548.
1943	59.50	1103840.	21.3	23489020.
1942	60.50	623050.	21.1	13136440.
1941	61.50	1043031.	20.9	21783460.
1940	62.50	2040950.	20.7	42211347.
1939	63.50	3552283.	20.5	72735955.
1938	64.50	1128098.	20.3	22861995.
1937	65.50	734483.	20.1	14728270.
1936	66.50	1970229.	19.8	39079870.
1935	67.50	83682.	19.6	1641364.
1934	68.50	120970.	19.4	2345523.
1933	69.50	606201.	19.2	11615261.
1932	70.50	1163698.	18.9	22026552.
1931	71.50	11451977.	18.7	214055491.
1930	72.50	5464733.	18.5	100831816.
1929	73.50	211521.	18.2	3851132.
TOTAL:		885915715.	25.3	22422437338.

Northern Natural Gas Company

ACCOUNT NO.

368. Compressor Station Equipment

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 45.0 YRS CURVE: IOWA

R1

TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
				YEARS
2002	0.50	36265898.	26.2	950155685.
2001	1.50	41782945.	26.1	1090412353.
2000	2.50	30166284.	26.0	784066722.
1999	3.50	5668568.	25.9	146717589.
1998	4.50	58436573.	25.8	1505921835.
1997	5.50	51701368.	25.7	1326344667.
1996	6.50	22396646.	25.5	571868712.
1995	7.50	10182575.	25.4	258726885.
1994	8.50	23431348.	25.3	592325781.
1993	9.50	24949047.	25.1	627325829.
1992	10.50	7524653.	25.0	188147363.
1991	11.50	2326859.	24.9	57840854.
1990	12.50	5774235.	24.7	142653783.
1989	13.50	4766489.	24.5	116997769.
1988	14.50	3818258.	24.4	93088225.
1987	15.50	2329097.	24.2	56378380.
1986	16.50	1947194.	24.0	46781226.
1985	17.50	4890712.	23.8	116576040.
1984	18.50	8109460.	23.6	191706372.
1983	19.50	7137285.	23.4	167266706.
1982	20.50	28107383.	23.2	652756670.
1981	21.50	49202244.	23.0	1131847960.
1980	22.50	8392119.	22.8	191143736.
1979	23.50	7967608.	22.5	179601078.
1978	24.50	7897332.	22.3	176102463.
1977	25.50	9847355.	22.0	217120940.
1976	26.50	8033106.	21.8	175049379.
1975	27.50	9946297.	21.5	214105996.
1974	28.50	16930999.	21.3	359857560.
1973	29.50	3911464.	21.0	82043311.
1972	30.50	6238937.	20.7	129078356.
1971	31.50	4428345.	20.4	90321419.
1970	32.50	7126379.	20.1	143216125.
1969	33.50	19460535.	19.8	385137141.
1968	34.50	10975297.	19.5	213776207.
1967	35.50	61596853.	19.2	1180143725.
1966	36.50	8847778.	18.8	166640285.
1965	37.50	5060039.	18.5	93627723.
1964	38.50	1164868.	18.2	21161547.
1963	39.50	5793939.	17.8	103272489.
1962	40.50	1435341.	17.5	25083969.

Northern Natural Gas Company

ACCOUNT NO.

368. Compressor Station Equipment

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 45.0 YRS CURVE: IOWA

R1

TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR INSTALLED	AGE AT 12/31/02	ORIGINAL COST	AVERAGE REMAINING LIFE	WEIGHTED DOLLAR YEARS
1961	41.50	3381352.	17.1	57898929.
1960	42.50	6195386.	16.8	103863612.
1959	43.50	6711914.	16.4	110084588.
1958	44.50	2053565.	16.0	32926071.
1957	45.50	6476423.	15.7	101429678.
1956	46.50	3642191.	15.3	55671611.
1955	47.50	580320.	14.9	8649796.
1954	48.50	2558880.	14.5	37159232.
1953	49.50	8578509.	14.1	121261410.
1952	50.50	3419387.	13.7	47005092.
1951	51.50	6255712.	13.4	83550648.
1950	52.50	4612024.	13.0	59787559.
1949	53.50	1726424.	12.6	21701903.
1948	54.50	1909706.	12.2	23254475.
1947	55.50	1195507.	11.8	14087446.
1946	56.50	127697.	11.4	1454619.
1945	57.50	196716.	11.0	2163856.
1944	58.50	622613.	10.6	6606083.
1943	59.50	15072.	10.2	154084.
1942	60.50	77680.	9.8	764339.
1941	61.50	187707.	9.5	1775987.
1940	62.50	121473.	9.1	1104136.
1939	63.50	0.	8.7	0.
1938	64.50	1442.	8.4	12058.
1937	65.50	117893.	8.0	943926.
1936	66.50	166321.	7.7	1273495.
1935	67.50	158914.	7.3	1162158.
1934	68.50	25268.	7.0	176204.
1933	69.50	0.	6.6	0.
1932	70.50	126033.	6.3	795329.
1931	71.50	43018.	6.0	257547.
1930	72.50	1.	5.7	6.
TOTAL:		697254860.	22.7	15859366731.

Northern Natural Gas Company

ACCOUNT NO.

369. Measuring and Regulating Station

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 39.0 YRS CURVE: IOWA

R1

TERMINAL DATE 12/31/2032

I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
				YEARS
2002	0.50	692167.	25.5	17665600.
2001	1.50	10857266.	25.4	275545145.
2000	2.50	12037694.	25.2	303718613.
1999	3.50	724801.	25.1	18175672.
1998	4.50	10255389.	24.9	255533925.
1997	5.50	11740533.	24.8	290587645.
1996	6.50	36022785.	24.6	885358973.
1995	7.50	1054763.	24.4	25733449.
1994	8.50	7233241.	24.2	175109599.
1993	9.50	9408937.	24.0	225931660.
1992	10.50	5757527.	23.8	137067574.
1991	11.50	2018145.	23.6	47611449.
1990	12.50	2121738.	23.4	49578127.
1989	13.50	2276266.	23.1	52653723.
1988	14.50	3106703.	22.9	71099927.
1987	15.50	683277.	22.6	15462614.
1986	16.50	600352.	22.4	13426023.
1985	17.50	1984546.	22.1	43831770.
1984	18.50	1359604.	21.8	29638748.
1983	19.50	1646375.	21.5	35400626.
1982	20.50	5895964.	21.2	124964448.
1981	21.50	3061729.	20.9	63922683.
1980	22.50	2073494.	20.6	42613956.
1979	23.50	1162958.	20.2	23510797.
1978	24.50	662097.	19.9	13157225.
1977	25.50	621375.	19.5	12128775.
1976	26.50	636450.	19.2	12193327.
1975	27.50	607978.	18.8	11423779.
1974	28.50	508273.	18.4	9358969.
1973	29.50	368282.	18.0	6640155.
1972	30.50	432270.	17.6	7625281.
1971	31.50	319085.	17.2	5502217.
1970	32.50	717563.	16.8	12084958.
1969	33.50	527788.	16.4	8673606.
1968	34.50	472130.	16.0	7564338.
1967	35.50	698872.	15.6	10905621.
1966	36.50	1756826.	15.2	26675355.
1965	37.50	379735.	14.8	5604749.
1964	38.50	690270.	14.3	9893654.
1963	39.50	233938.	13.9	3252745.
1962	40.50	1412031.	13.5	19026079.

Northern Natural Gas Company

ACCOUNT NO.

369. Measuring and Regulating Station

## DETERMINATION OF AVERAGE REMAINING LIFE AT 12/31/02

LIFE: 39.0 YRS CURVE: IOWA

R1

TERMINAL DATE 12/31/2032

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I	II	III	IV	V
YEAR	AGE AT	ORIGINAL	AVERAGE	WEIGHTED
INSTALLED	12/31/02	COST	REMAINING LIFE	DOLLAR
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1961	41.50	1052023.	13.0	13722485.
1960	42.50	568944.	12.6	7176469.
1959	43.50	297569.	12.2	3625817.
1958	44.50	128120.	11.8	1506417.
1957	45.50	384291.	11.3	4355190.
1956	46.50	310136.	10.9	3384106.
1955	47.50	166275.	10.5	1744944.
1954	48.50	702323.	10.1	7080829.
1953	49.50	341232.	9.7	3301940.
1952	50.50	130169.	9.3	1207734.
1951	51.50	159608.	8.9	1418500.
1950	52.50	69948.	8.5	594770.
1949	53.50	20766.	8.1	168741.
1948	54.50	38499.	7.8	298578.
1947	55.50	18063.	7.4	133513.
1946	56.50	13603.	7.0	95689.
1945	57.50	8840.	6.7	59077.
1944	58.50	16444.	6.3	104237.
1943	59.50	867.	6.0	5202.
1942	60.50	0.	5.7	0.
1941	61.50	6026.	5.3	32178.
1940	62.50	5784.	5.0	29027.
1939	63.50	17083.	4.7	80333.
1938	64.50	5563.	4.4	24428.
1937	65.50	0.	4.1	0.
1936	66.50	493.	3.8	1864.
1935	67.50	1653.	3.5	5757.
1934	68.50	0.	3.2	0.
1933	69.50	0.	2.9	0.
1932	70.50	5133.	2.6	13221.
1931	71.50	0.	2.3	0.
1930	72.50	0.	1.9	0.
1929	73.50	2285.	1.6	3557.
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TOTAL:		149292957.	23.1	3456028181.
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