



NW Natural[®]

2020 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION
ACCRUALS RELATED TO GAS PLANT
AS OF DECEMBER 31, 2020

Prepared by:



Gannett Fleming

*Excellence Delivered **As Promised***

NORTHWEST NATURAL GAS COMPANY
Portland, Oregon

2020 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION
ACCRUALS RELATED TO GAS PLANT
AS OF DECEMBER 31, 2020

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC
Camp Hill, Pennsylvania



*Excellence Delivered **As Promised***

December 9, 2021

Northwest Natural Gas Company
250 SW Taylor Street
Portland, OR 97204

Attention: Zachary Kravitz
Rates and Regulatory Affairs

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the gas plant of Northwest Natural Gas Company as of December 31, 2020. The attached report presents a description of the methods used in the estimation of depreciation, the summary of annual depreciation accrual rates, the statistical support for the life and net salvage estimates and the detailed tabulations of annual depreciation.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC.

A handwritten signature in black ink that reads "John J. Spanos".

JOHN J. SPANOS
President

JJS:mle

068903.100

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NORTHWEST NATURAL GAS COMPANY

DEPRECIATION STUDY

EXECUTIVE SUMMARY

Pursuant to Northwest Natural Gas Company's ("NWNat" or "Company") request, Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") conducted a depreciation study related to the gas plant of NWNat as of December 31, 2020. The purpose of this study was to determine the annual depreciation accrual rates and amounts for book and ratemaking purposes.

The depreciation rates are based on the straight line method using the average service life ("ASL") procedure and were applied on a remaining life basis. The calculations were based on attained ages and estimated average service life, and forecasted net salvage characteristics for each depreciable group of assets.

NWNat's accounting policy for plant assets has not changed since the last depreciation study was prepared. However, there have been changes to the plant in service due to system improvements and to the detailed accumulated depreciation reserve due to recording of Removal Work in Progress (RWIP) based on Order No. 20-364. In Order No. 20-364, it was determined that RWIP will be included in the next depreciation study and the RWIP balance will be properly recorded in the accumulated depreciation account in order to be included in depreciation rates consistent with standard practices in the industry. Pursuant to Order No. 20-364, NWNat has made these changes to the treatment of RWIP, which has resulted in changes to net salvage estimates in the study, and by consequence has affected the proposed depreciation rates.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to gas plant in service as of December 31, 2020 as summarized by Table 1 of the study. Supporting analysis and calculations are provided within the study.

The study results set forth an annual depreciation expense of \$116.2 million when applied to depreciable plant balances as of December 31, 2020. The results are summarized at the functional level as follows:

SUMMARY OF ORIGINAL COST, ACCRUAL RATES AND AMOUNTS

FUNCTION	ORIGINAL COST AS OF DECEMBER 31, 2020	PROPOSED RATE	PROPOSED EXPENSE
Intangible Plant	\$ 171,599,335.14	5.92	\$ 10,165,571
Oil Gas Facilities	21,398.00	16.25	3,477
Other Production Facilities	628,802.00	-	0
Underground Storage Plant	181,026,852.73	1.95	3,536,778
Local Storage Plant	86,341,544.73	3.59	3,100,641
Transmission Plant	364,108,509.18	1.92	6,986,850
Distribution Plant	2,492,903,698.32	2.93	73,153,946
General Plant	271,841,260.52	7.37	20,047,321
General Plant Reserve Amortization	-	-	(781,744)
Total	<u>\$3,568,471,400.62</u>	<u>3.26</u>	<u>\$116,212,840</u>

PART I. INTRODUCTION

NORTHWEST NATURAL GAS COMPANY DEPRECIATION STUDY

PART I. INTRODUCTION

SCOPE

This report sets forth the results of the depreciation study for Northwest Natural Gas Company (“Company”), to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of gas plant as of December 31, 2020. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to gas plant in service as of December 31, 2020.

The service life and net salvage estimates resulting from the study were based on informed judgment which incorporated analyses of historical plant retirement data as recorded through 2020, a review of Company practice and outlook as they relate to plant operation and retirement, and consideration of current practice in the gas industry, including knowledge of service lives and net salvage estimates used for other gas companies.

PLAN OF REPORT

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and methods used in the service life study. Part III, Service Life Considerations, presents the results of the average service life analysis. Part IV, Net Salvage Considerations, presents the results of the net salvage study. Part V, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part VI, Results of Study, presents summaries by depreciable group

of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VII, Service Life Statistics presents the statistical analysis of service life estimates, Part VIII, Net Salvage Statistics sets forth the statistical indications of net salvage percents, and Part IX, Detailed Depreciation Calculations presents the detailed tabulations of annual depreciation.

BASIS OF THE STUDY

Depreciation

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing gas utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of time over which an item renders service, that is, the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the straight line method of depreciation.

For most accounts, the annual depreciation was calculated by the straight line method using the average service life procedure and the remaining life basis. For certain General Plant accounts, the annual depreciation is based on amortization accounting.

Both types of calculations were based on original cost, attained ages, and estimates of service lives and net salvage.

The straight line method, average service life procedure is a commonly used depreciation calculation procedure that has been widely accepted in jurisdictions throughout North America. Gannett Fleming recommends its continued use. Amortization accounting is used for certain General Plant accounts because of the disproportionate plant accounting effort required when compared to the minimal original cost of the large number of items in these accounts. An explanation of the calculation of annual and accrued amortization is presented beginning on page V-4 of the report.

Service Life and Net Salvage Estimates

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed judgment which incorporated a review of management's plans, policies and outlook, a general knowledge of the gas utility industry, and comparisons of the service life and net salvage estimates from our studies of other gas utilities. The use of survivor curves to reflect the expected dispersion of retirement provides a consistent method of estimating depreciation for gas plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data analyses and the probable future. The combination of the historical experience and the estimated future yielded estimated survivor curves from which the average service lives were derived.

PART II. ESTIMATION OF SURVIVOR CURVES

PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

SURVIVOR CURVES

The use of an average service life for a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units or by constructing a survivor curve by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

Iowa Type Curves

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.

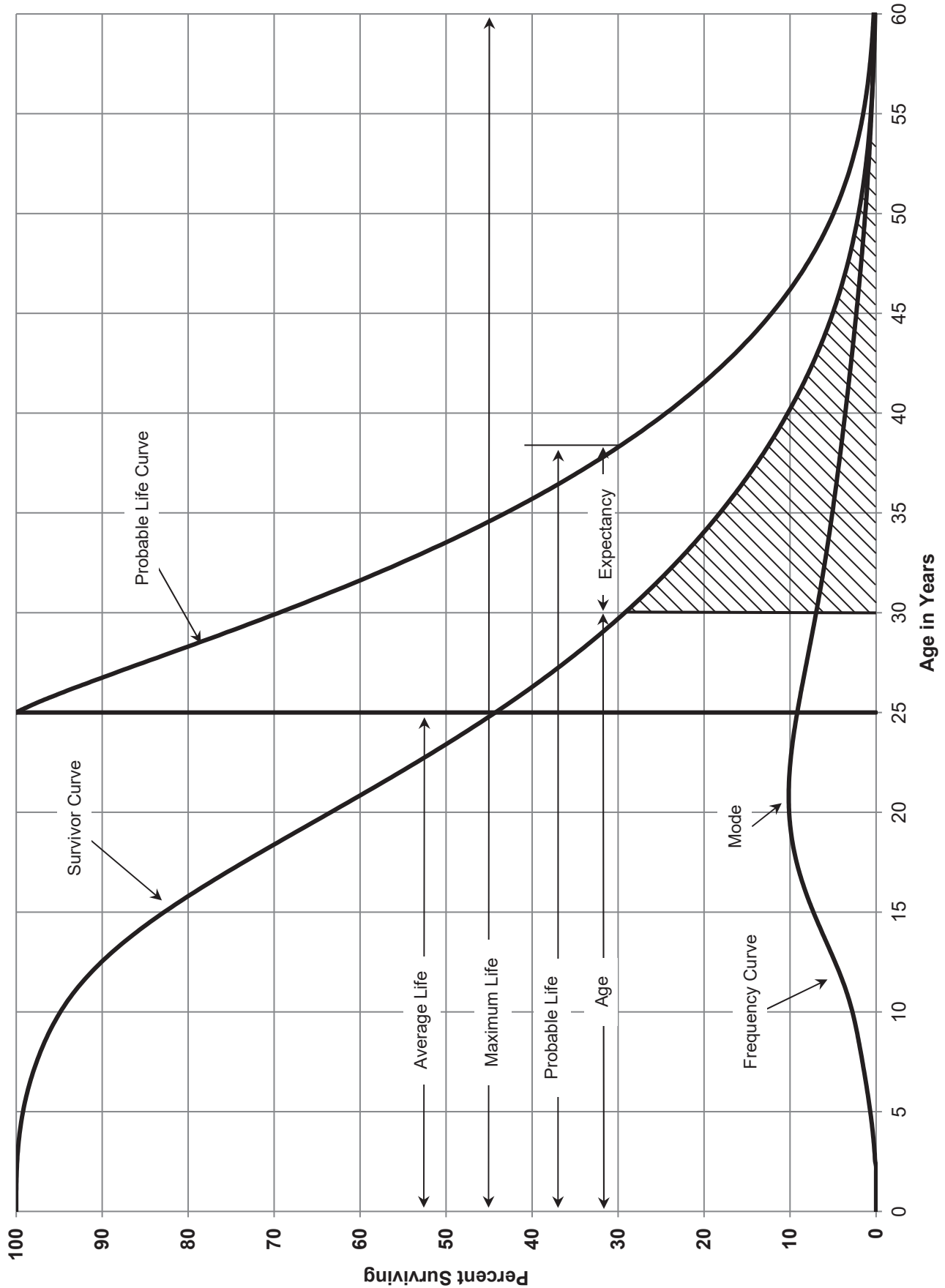


FIGURE 1. TYPICAL SURVIVOR CURVE AND DERIVED CURVES

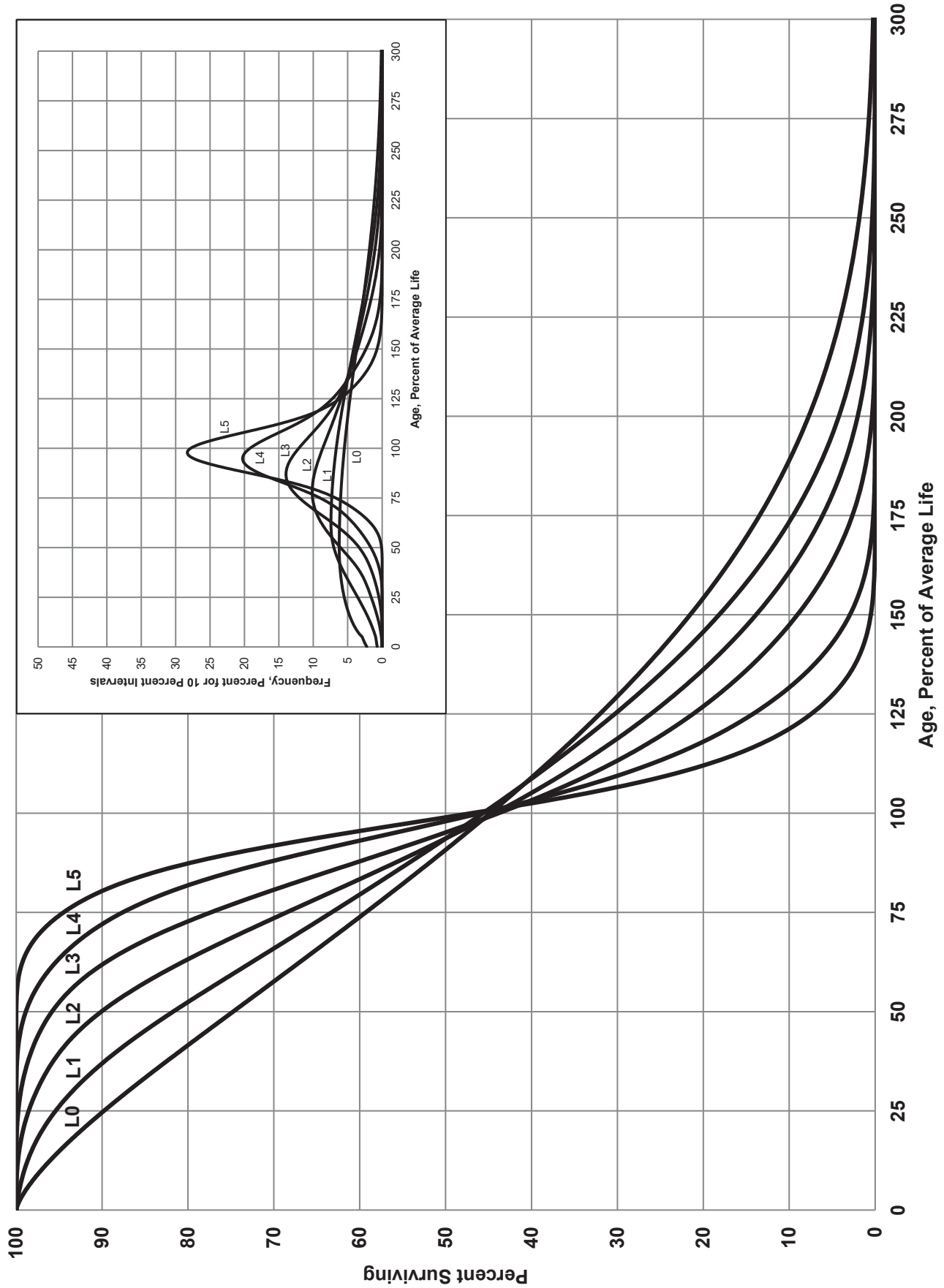


FIGURE 2. LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES

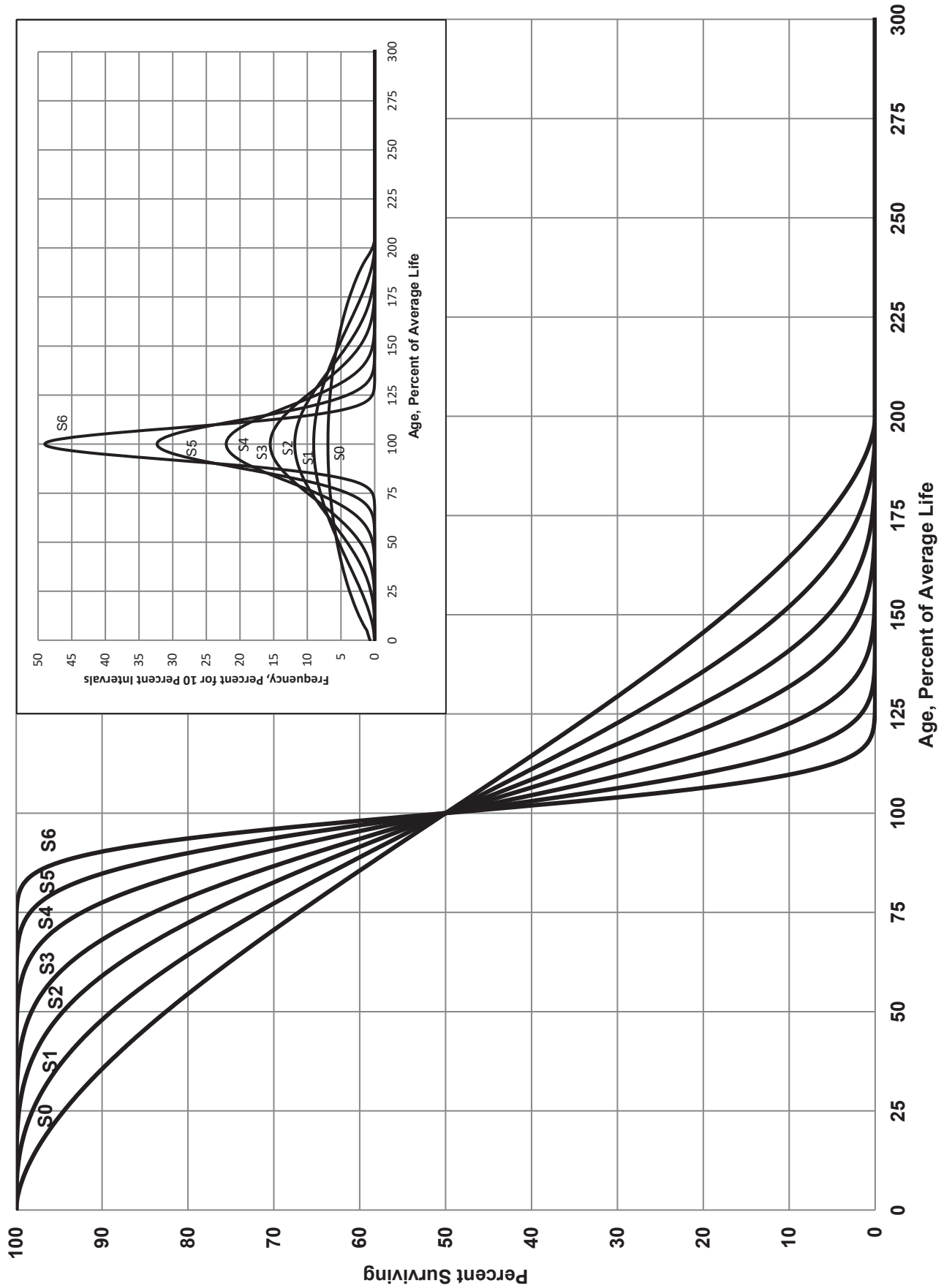


FIGURE 3. SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES

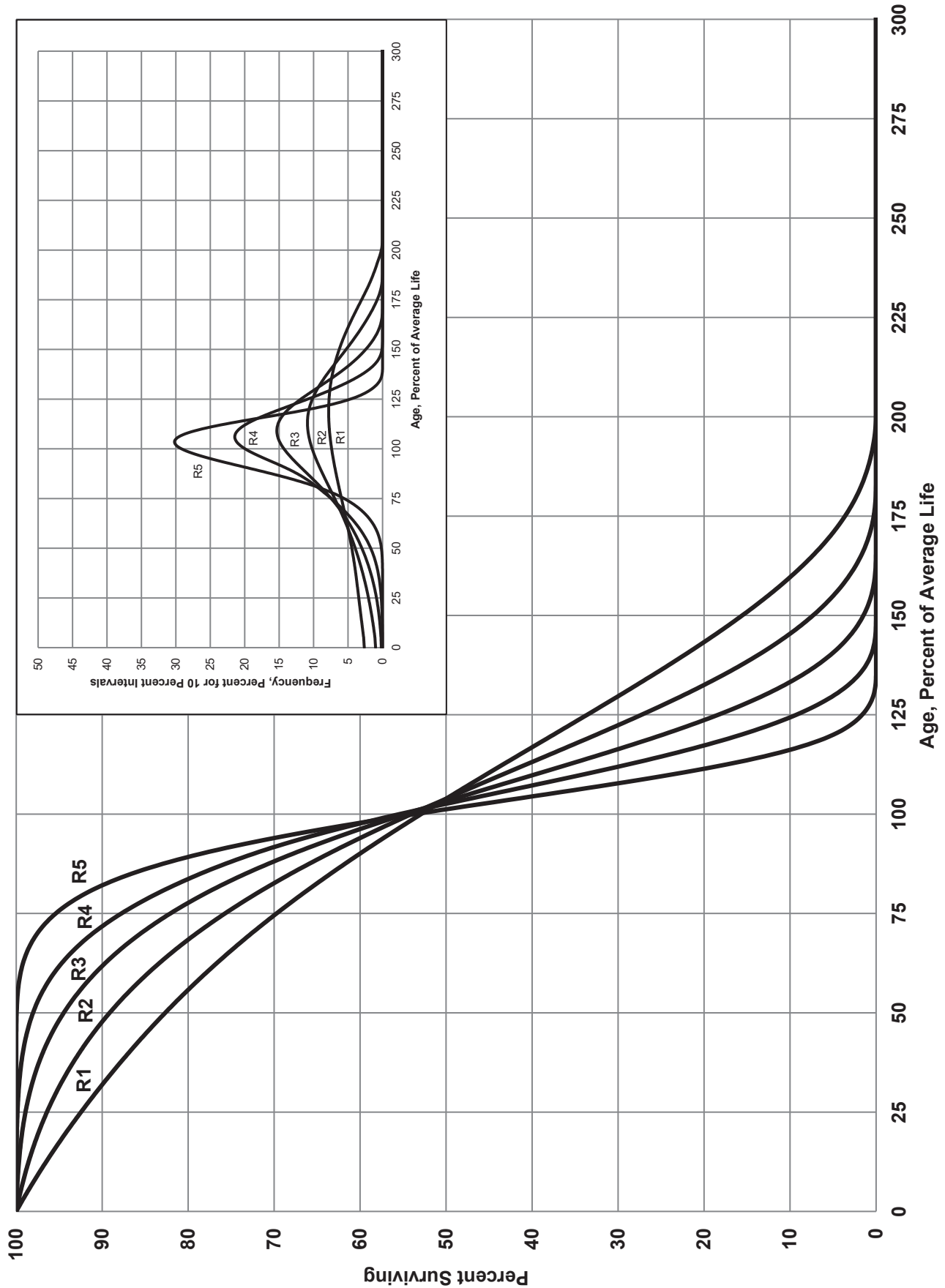


FIGURE 4. RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES

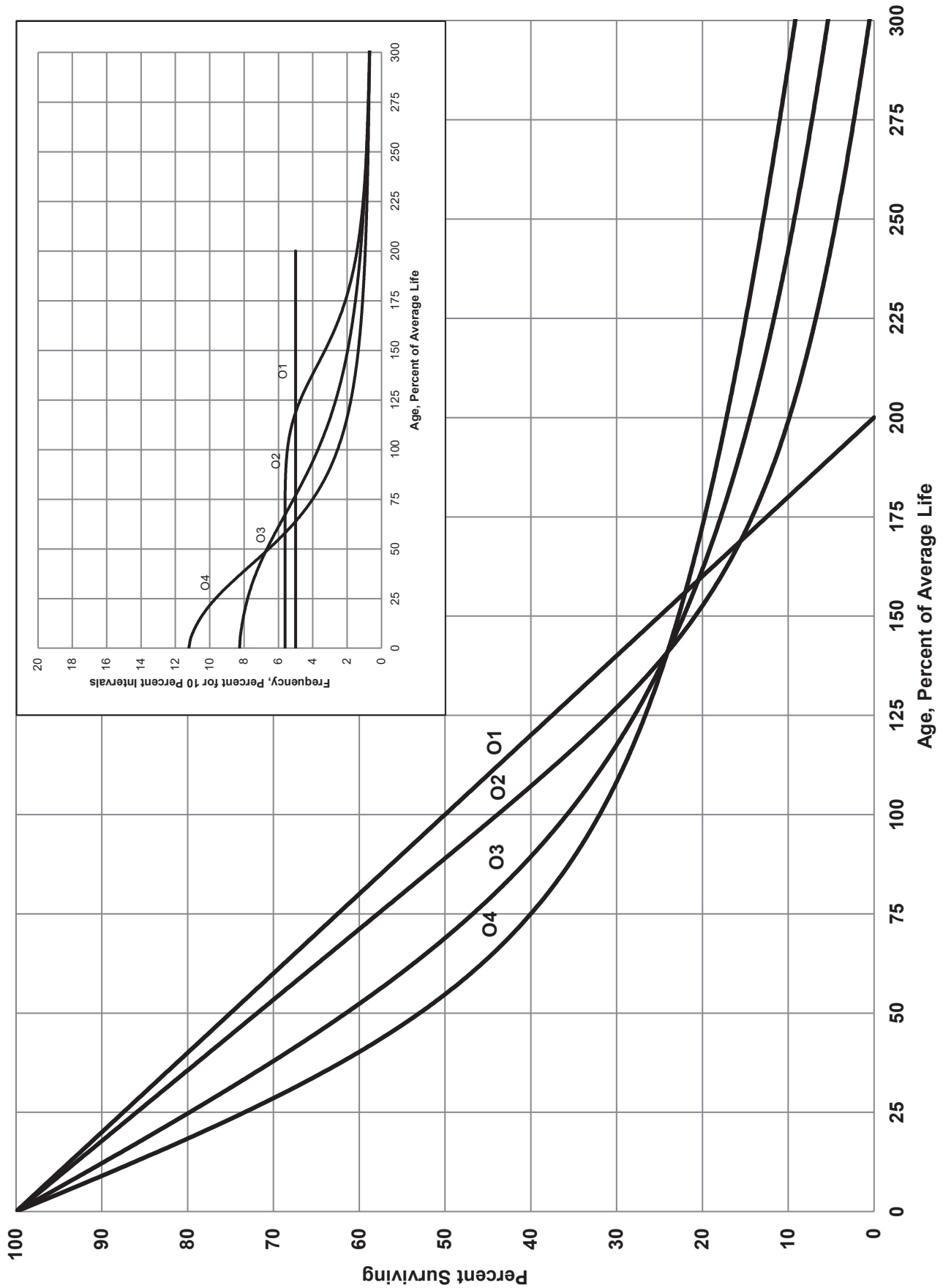


FIGURE 5. ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."¹ In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

Retirement Rate Method of Analysis

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text and is also explained in several publications including "Statistical Analyses of Industrial Property Retirements,"² "Engineering Valuation and Depreciation,"³ and "Depreciation Systems."⁴

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band. The band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

¹Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

²Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

³Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

⁴Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2011-2020 for which there were placements during the years 2006-2020. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the dollars invested in 2006 were retired in 2011. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2011 retirements of 2006 installations and ending with the 2020 retirements of the 2015 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2011-2020
SUMMARIZED BY AGE INTERVAL

Year Placed (1)	Retirements, Thousands of Dollars										Total During		Age Interval (13)
	During Year										Age Interval (12)	Age Interval (13)	
	2011 (2)	2012 (3)	2013 (4)	2014 (5)	2015 (6)	2016 (7)	2017 (8)	2018 (9)	2019 (10)	2020 (11)			
2006	10	11	12	13	14	16	23	24	25	26	26	26	13½-14½
2007	11	12	13	15	16	18	20	21	22	19	19	44	12½-13½
2008	11	12	13	14	16	17	19	21	22	18	18	64	11½-12½
2009	8	9	10	11	11	13	14	15	16	17	17	83	10½-11½
2010	9	10	11	12	13	14	16	17	19	20	20	93	9½-10½
2011	4	9	10	11	12	13	14	15	16	20	20	105	8½-9½
2012		5	11	12	13	14	15	16	18	20	20	113	7½-8½
2013			6	12	13	15	16	17	19	19	19	124	6½-7½
2014				6	13	15	16	17	19	19	19	131	5½-6½
2015					7	14	16	17	19	20	20	143	4½-5½
2016						8	18	20	22	23	23	146	3½-4½
2017							9	20	22	25	25	150	2½-3½
2018								11	23	25	25	151	1½-2½
2019									11	24	24	153	½-1½
2020										13	13	80	0-½
Total	53	68	86	106	128	157	196	231	273	308	1,606		

Experience Band 2011-2020

Placement Band 2006-2020

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2011-2020
SUMMARIZED BY AGE INTERVAL

Year Placed (1)	Experience Band 2011-2020										Placement Band 2006-2020			
	Acquisitions, Transfers and Sales, Thousands of Dollars										Total During Age Interval (12)	Age Interval (13)		
	2011 (2)	2012 (3)	2013 (4)	2014 (5)	2015 (6)	2016 (7)	2017 (8)	2018 (9)	2019 (10)	2020 (11)				
2006	-	-	-	-	-	-	60 ^a	-	-	-	-	-	-	13½-14½
2007	-	-	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2009	-	-	-	-	-	-	-	(5) ^b	-	-	60	-	-	10½-11½
2010	-	-	-	-	-	-	-	6 ^a	-	-	-	-	-	9½-10½
2011	-	-	-	-	-	-	-	-	-	-	(5)	-	-	8½-9½
2012	-	-	-	-	-	-	-	-	-	-	6	-	-	7½-8½
2013	-	-	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2014	-	-	-	-	-	-	-	(12) ^b	-	-	-	-	-	5½-6½
2015	-	-	-	-	-	-	-	-	22 ^a	-	-	-	-	4½-5½
2016	-	-	-	-	-	-	-	(19) ^b	-	-	10	-	-	3½-4½
2017	-	-	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2018	-	-	-	-	-	-	-	-	-	(102) ^c	-	-	-	1½-2½
2019	-	-	-	-	-	-	-	-	-	-	-	-	-	½-1½
2020	-	-	-	-	-	-	-	-	-	-	-	-	-	0-½
Total	-	-	-	-	-	-	60	(30)	22	(102)	(50)	-	-	

^a Transfer Affecting Exposures at Beginning of Year

^b Transfer Affecting Exposures at End of Year

^c Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements, but are used in developing the exposures at the beginning of each age interval.

Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2011 through 2020 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2016 are calculated in the following manner:

Exposures at age 0	= amount of addition	= \$750,000
Exposures at age ½	= \$750,000 - \$ 8,000	= \$742,000
Exposures at age 1½	= \$742,000 - \$18,000	= \$724,000
Exposures at age 2½	= \$724,000 - \$20,000 - \$19,000	= \$685,000
Exposures at age 3½	= \$685,000 - \$22,000	= \$663,000

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT
JANUARY 1 OF EACH YEAR 2011-2020
SUMMARIZED BY AGE INTERVAL

Year Placed	Exposures, Thousands of Dollars										Total at Beginning of Age Interval	Age Interval	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			(11)
2006	255	245	234	222	209	195	239	216	192	167	167	167	13½-14½
2007	279	268	256	243	228	212	194	174	153	131	131	323	12½-13½
2008	307	296	284	271	257	241	224	205	184	162	162	531	11½-12½
2009	338	330	321	311	300	289	276	262	242	226	226	823	10½-11½
2010	376	367	357	346	334	321	307	297	280	261	261	1,097	9½-10½
2011	420 ^a	416	407	397	386	374	361	347	332	316	316	1,503	8½-9½
2012		460 ^a	455	444	432	419	405	390	374	356	356	1,952	7½-8½
2013			510 ^a	504	492	479	464	448	431	412	412	2,463	6½-7½
2014				580 ^a	574	561	546	530	501	482	482	3,057	5½-6½
2015					660 ^a	653	639	623	628	609	609	3,789	4½-5½
2016						750 ^a	742	724	685	663	663	4,332	3½-4½
2017							850 ^a	841	821	799	799	4,955	2½-3½
2018								960 ^a	949	926	926	5,719	1½-2½
2019									1,080 ^a	1,069	1,069	6,579	½-1½
2020										1,220 ^a	7,490	7,490	0-½
Total	1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780		

^aAdditions during the year

Experience Band 2011-2020

Placement Band 2006-2020

For the entire experience band 2011-2020, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

Original Life Table

The original life table, illustrated in Schedule 4 on page II-16, is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	3,789,000	
Retirements from age 4½ to 5½	=	143,000	
Retirement Ratio	=	143,000 ÷ 3,789,000	= 0.0377
Survivor Ratio	=	1.000 - 0.0377	= 0.9623
Percent surviving at age 5½	=	(88.15) x (0.9623)	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

SCHEDULE 4. ORIGINAL LIFE TABLE
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2011-2020

Placement Band 2006-2020

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	<u>167</u>	<u>26</u>	0.1557	0.8443	42.24
					35.66
Total	<u>44,780</u>	<u>1,606</u>			

Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.

Column 3 from Schedule 1, Column 12, Retirements for Each Year.

Column 4 = Column 3 Divided by Column 2.

Column 5 = 1.0000 Minus Column 4.

Column 6 = Column 5 Multiplied by Column 6 as of the Preceding Age Interval.

The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.

Smoothing the Original Survivor Curve

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.

FIGURE 6. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1 IOWA TYPE CURVE
 ORIGINAL AND SMOOTH SURVIVOR CURVES

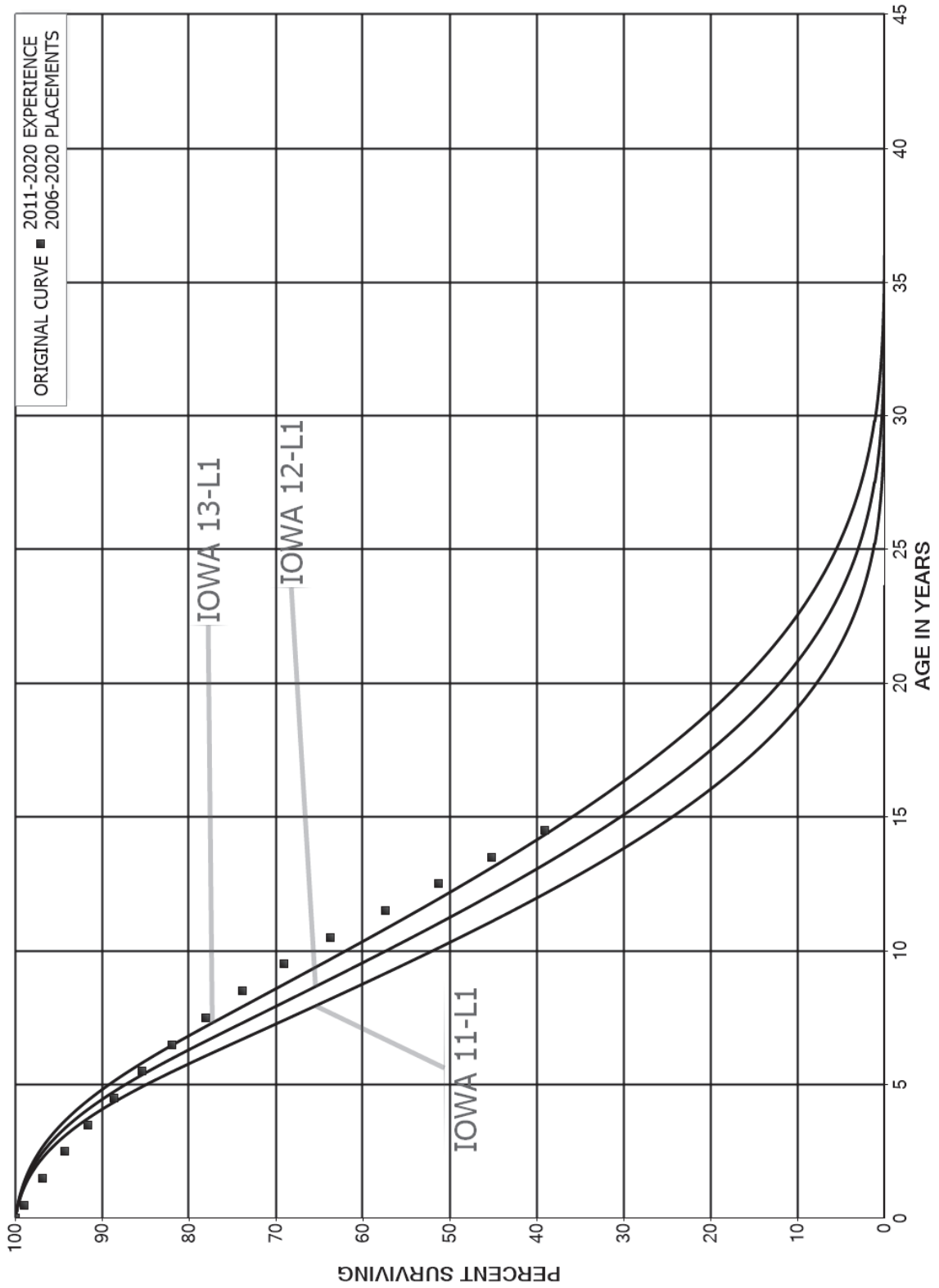


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

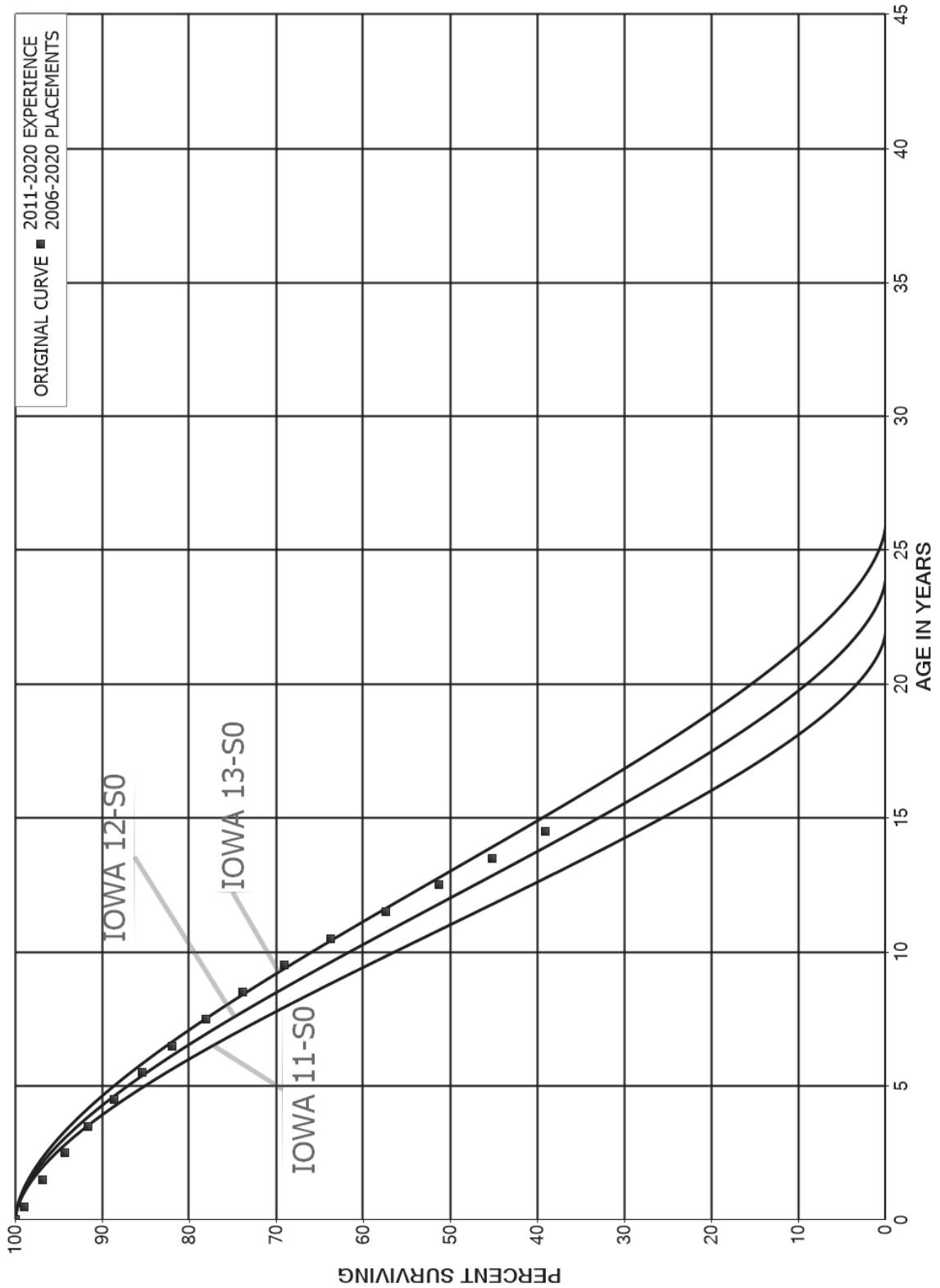


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

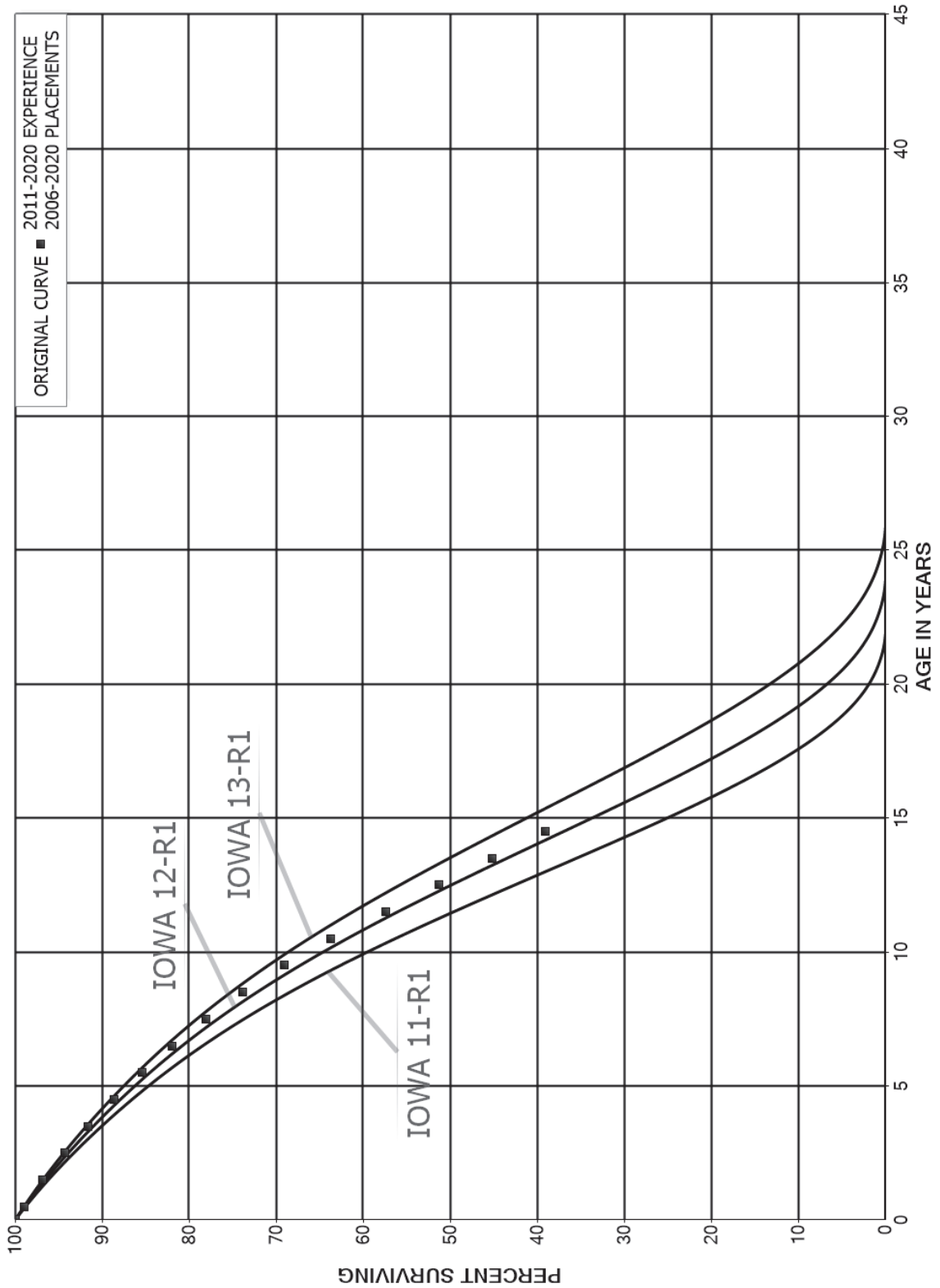
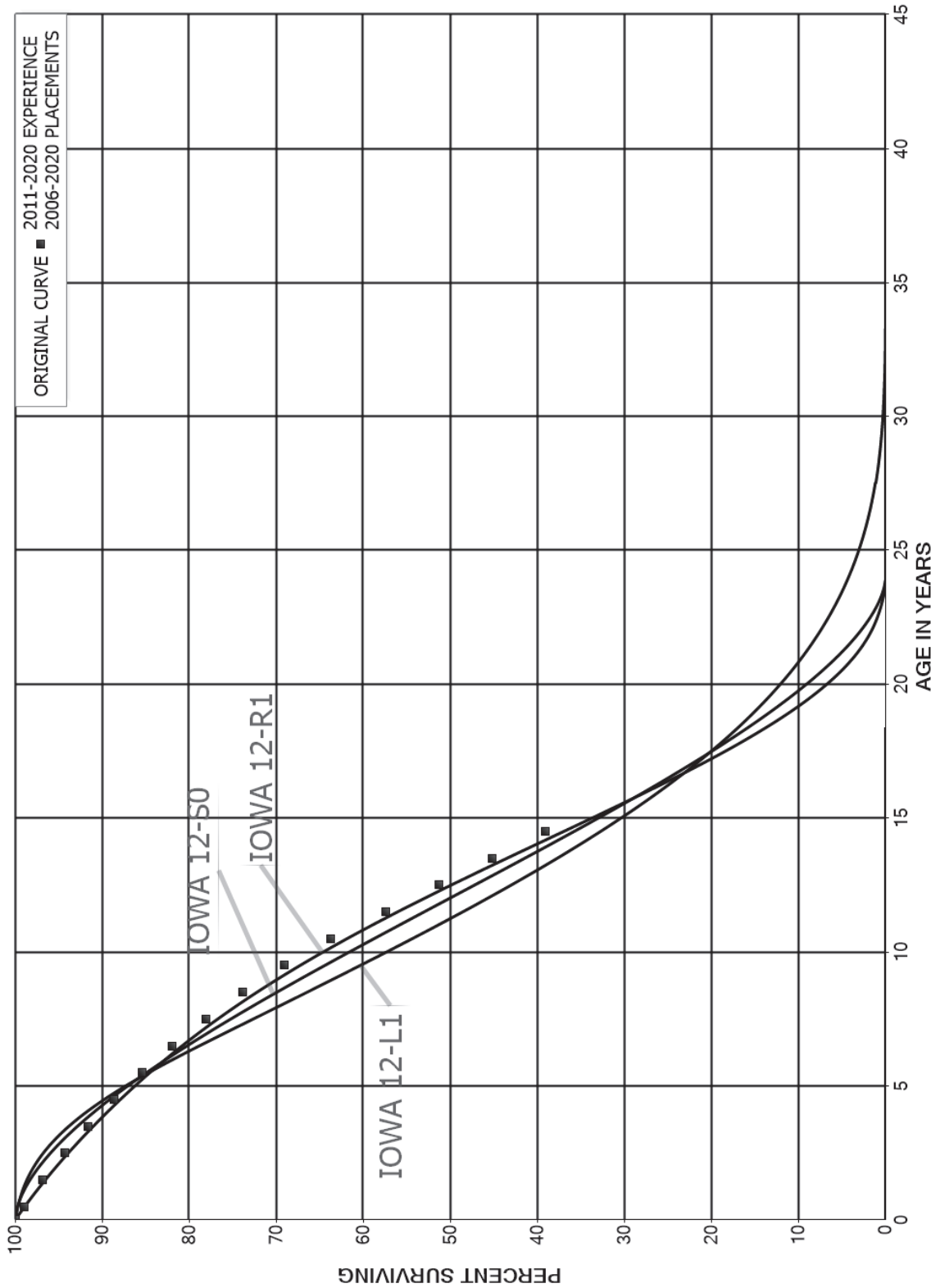


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PART III. SERVICE LIFE CONSIDERATIONS

PART III. SERVICE LIFE CONSIDERATIONS

FIELD TRIPS

In order to be familiar with the operation of the Company and observe representative portions of the plant, field trips have been conducted. A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during the most recent field trip.

September 28-29, 2021

North Mist Compressor Station
Injection Well 44-03-65
Mist (Miller Station) Compressor Station
Sauvie Island City Gate Station
Gasco Mixer Station (Measuring & Regulating Station)
Linnton (Portland) LNG Plant
Jean Road Regulating Station
Sherwood Service Center

SERVICE LIFE ANALYSIS

The service life estimates were based on informed judgment which considered a number of factors. The primary factors were the statistical analyses of data; current Company policies and outlook as determined during conversations with management; and the survivor curve estimates from previous studies of this company and other gas companies.

For many of the plant accounts and subaccounts for which survivor curves were estimated, the statistical analyses using the retirement rate method resulted in good to excellent indications of the survivor patterns experienced. These accounts represent 71 percent of depreciable plant. Generally, the information external to the statistics led to no

significant departure from the indicated survivor curves for the accounts listed below. The statistical support for the service life estimates is presented in the section beginning on page VII-2.

OIL GAS FACILITIES

305.50 Structures and Improvements - Other

OTHER PRODUCTION FACILITIES

305.11 Structures and Improvements – Gas Production

305.17 Structures and Improvements – Mixing Station

LOCAL STORAGE PLANT

361.00 Structures and Improvements

363.20 Vaporizing Equipment

363.50 CNG Refueling Facilities

DISTRIBUTION PLANT

375.00 Structures and Improvements

376.11 Mains – HP 4” and Less

376.12 Mains – HP 4” and Over

380.00 Services

381.00 Meters

381.10 Meters – Electric

381.20 Meters – ERT

382.00 Meter Installations

382.10 Meter Installations – Electric

382.20 Meter Installations – ERT

GENERAL PLANT

392 Transportation Equipment

396 Power Operated Equipment

The combined analysis of Accounts 376.11 - Mains, HP 4” and Less; and 376.12, Mains – HP 4” and Over, is used to illustrate the manner in which the study was conducted for the groups in the preceding list. The combined Accounts 376.11 and 376.12 represent 37 percent of the total depreciable plant. Aged plant accounting data have been compiled for the years 1910 through 2020. These data have been coded in the course of the Company's normal record keeping according to account or property group, type of

transaction, year in which the transaction took place, and year in which the gas plant was placed in service. The retirements, other plant transactions, and plant additions were analyzed by the retirement rate method.

The survivor curve estimate is based on the statistical indications for the period 1910 through 2020 and 1961 through 2020. The Iowa 68-R3 is an excellent fit of the original survivor curve. The 68-year service life is within the typical service life range of 55 to 70 years for mains. The 68-year life reflects the Company's plans and practices of the past and next few years. The previous estimate was the Iowa 65-R2.5.

The survivor curve estimate for Account 380, Services, is based on the statistical analyses of historical retirement experience for the periods 1919-2020, 1976-2015 and 1981-2015. The 65-R2 estimate for Account 380, Services, is a good fit of the original survivor curve developed from historical plant retirements for the period 1919 through 2020. However, the lack of recorded retirements in the last few years are not expected to continue so emphasis on the level of retirements through 2015 are expected into the future. The 65-R2 survivor curve sets forth the constant rates of retirement through approximately age 76. The 65-year average service life is above the upper end of the typical range of 40-55 years for services. The previous estimate was the Iowa 58-R2

The survivor curve estimates for the remaining accounts in the preceding list were based on similar statistical analyses and previous studies for this and other gas utilities. The remaining accounts were based primarily on judgment and estimates of other gas utilities.

Life Span Estimates

Inasmuch as production plant consists of large units, the life span technique was employed in conjunction with the use of interim survivor curves which reflect interim retirements that occur prior to the ultimate retirement of the major unit. An interim survivor curve was estimated for each plant account, inasmuch as the rate of interim retirements differs from account to account. The interim survivor curves estimated for local storage plant were based on the retirement rate method of life analysis which incorporated experienced aged retirements for the period 1961 through 2020.

The depreciable life span estimates for storage facilities were the result of considering experienced life spans of similar facilities, the age of surviving plants, general operating characteristics of the station, major refurbishing, and discussions with management personnel concerning the probable long-term outlook for the stations.

The estimated survivor curves for local storage plant reflect the life span or forecast concept of life estimation. In the life span concept, an interim survivor curve is selected to describe the rates of retirement between installation and the final concurrent retirement of all facilities at a location. The forecast life span for the Linnton and Newport plants in the local storage plant accounts, is set forth in years from the date of their initial major installation. Although the Company has no plans to replace these plants in the foreseeable future, the forecast retirement dates represent the midpoint of a range of dates during which significant replacement of the facilities presently in service will be required due to their age and improvements in technology.

	Probable Retirement <u>Date</u>	Initial Major <u>Installation</u>	Life <u>Span</u>
Local Storage			
Linnton	2036	1969,2016	67,20
Newport	2042	1977,2017	55,25

Similar studies were performed for the remaining plant accounts. Each of the judgments represented a consideration of statistical analyses of aged plant activity, management's outlook for the future, and the typical range of lives used by other gas companies.

The selected amortization periods for other General Plant accounts are described in the section "Calculated Annual and Accrued Amortization."

PART IV. NET SALVAGE CONSIDERATIONS

PART IV. NET SALVAGE CONSIDERATIONS

NET SALVAGE ANALYSIS

The estimates of net salvage by account were based in part on historical data compiled for the years 1993 through 2020. Cost of removal and salvage were expressed as percents of the original cost of plant retired, both on annual and three-year moving average bases. The most recent five-year average also was calculated for consideration. The net salvage estimates by account are expressed as a percent of the original cost of plant retired.

Net Salvage Considerations

The estimates of future net salvage are expressed as percentages of surviving plant in service, i.e., all future retirements. In cases in which removal costs are expected to exceed salvage receipts, a negative net salvage percentage is estimated. The net salvage estimates were based on judgment which incorporated analyses of historical cost of removal and gross salvage data, expectations with respect to future removal requirements and markets for retired equipment and materials.

The analyses of historical cost of removal and gross salvage data are presented in the section titled “Net Salvage Statistics” for the plant accounts for which the net salvage estimate relied partially on those analyses.

Statistical analyses of historical data for the period 1993 through 2020 contributed significantly toward the net salvage estimates for 11 plant accounts, representing 73 percent of the depreciable plant, as follows:

DISTRIBUTION PLANT	
376.11	Mains – HP 4” and Less
376.12	Mains – HP 4” and Over
380.00	Services
381.00	Meters

381.20	Meters – ERT
382.00	Meter Installations
382.20	Meter Installations – ERT

GENERAL PLANT

390.00	Structures and Improvements
390.10	Structures and Improvements – Source Control Plant
392.00	Transportation Equipment
396.00	Power Operated Equipment

Account 376.11, Mains – HP 4” and Less, is used to illustrate the manner in which the study was conducted for the groups in the preceding list. Net salvage data for the period 1993 through 2020 were analyzed for this account. The data include cost of removal, gross salvage and net salvage amounts and each of these amounts is expressed as a percent of the original cost of regular retirements. Three-year moving averages for the 1993-1995 through 2018-2020 periods were computed to smooth the annual amounts.

Cost of removal fluctuated considerably during the 28-year period, 1993-2020. The practices for applying labor costs to removing pipe versus installing new pipe had not changed prior to 2019 however, there is a plan to allocate more to installation of the new asset. Cost of removal for the most recent five years averaged 252 percent.

Gross salvage has been minimal throughout the period with a slight increase in recent years due to a few projects. The most recent five-year average of 11 percent gross salvage reflects minimal salvage value for pipe.

The net salvage percent based on the overall period 1993 through 2020 is 84 percent negative net salvage. The range of estimates made by other gas companies for mains is negative 15 to negative 75 percent. Because the overall statistical indications are slightly above the upper end of the industry range and the most recent five-year period

is well above the upper end of the range, the statistical indication of negative 75 percent was selected for the Company's mains. This also considers the expected reduction due to less cost of removal being assigned to main replacement projects.

The net salvage estimates for the remaining accounts were based on judgment incorporating estimates of previous studies of this and other gas utilities.

The net salvage estimates for the remaining plant accounts were estimated using the above-described process of historical indications, judgment and reviewing the typical range of estimates used by other gas companies. The results of the net salvage for each plant account are presented in account sequence beginning in the section titled "Net Salvage Statistics", page VIII-2.

Generally, the net salvage estimates for remaining general plant accounts were zero percent, consistent with amortization accounting.

PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

PART V. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

GROUP DEPRECIATION PROCEDURES

A group procedure for depreciation is appropriate when considering more than a single item of property. Normally the items within a group do not have identical service lives, but have lives that are dispersed over a range of time. There are two primary group procedures, namely, average service life and equal life group. In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and this rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

Single Unit of Property

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a \$1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4 + 6)} = \$100 \text{ per year.}$$

The accrued depreciation is:

$$\$1,000 \left(1 - \frac{6}{10} \right) = \$400.$$

Remaining Life Annual Accruals

For the purpose of calculating remaining life accruals as of December 31, 2020, the depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation follow. The detailed calculations as of December 31, 2020, are set forth in the Results of Study section of the report.

Average Service Life Procedure

In the average service life procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the average remaining life of the vintage. The average remaining life is a directly weighted average derived from the estimated future survivor curve in accordance with the average service life procedure.

The calculated accrued depreciation for each depreciable property group represents that portion of the depreciable cost of the group which would not be allocated to expense through future depreciation accruals if current forecasts of life characteristics are used as the basis for such accruals. The accrued depreciation calculation consists of applying an appropriate ratio to the surviving original cost of each vintage of each account based upon the attained age and service life. The straight line accrued depreciation ratios are calculated as follows for the average service life procedure:

$$Ratio = 1 - \frac{Average\ Remaining\ Life}{Average\ Service\ Life}$$

CALCULATION OF ANNUAL AND ACCRUED AMORTIZATION

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for a number of accounts that represent numerous units of property, but a very small portion of depreciable gas plant in service.

The accounts and their amortization periods are as follows:

<u>Account</u>	Amortization Period, <u>Years</u>
391.1 Office Furniture and Equipment	20
391.2 Office Furniture and Equipment – Computers	5
393.0 Stores Equipment	25
394.0 Tools, Shop and Garage Equipment - Non Specific	25
395.0 Laboratory Equipment	20
397.0 Communication Equipment	15
397.1 Communication Equipment – Mobile	10
397.2 Communication Equipment – Non Mobile and Telemeter	15
397.3 Communication Equipment – Telemeter Other	15
397.4 Communication Equipment – Telemeter Microwave	15
397.5 Communication Equipment – Telephone	10
398.1 Miscellaneous Equipment – Print Shop	15
398.2 Miscellaneous Equipment – Kitchen	15
398.3 Miscellaneous Equipment – Janitorial	20
398.4 Miscellaneous – Leased Buildings	20
398.5 Miscellaneous Equipment - Other	20

For the purpose of calculating annual amortization amounts as of December 31, 2020, the book depreciation reserve for each plant account or subaccount is assigned or allocated to vintages. The book reserve assigned to vintages with an age greater than the amortization period is equal to the vintage's original cost. The remaining book reserve is allocated among vintages with an age less than the amortization period in proportion to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the future amortizations (original cost less allocated book reserve) by the remaining period of amortization for the vintage.

PART VI. RESULTS OF STUDY

PART VI. RESULTS OF STUDY

QUALIFICATION OF RESULTS

The calculated annual and accrued depreciation are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and net salvage and for the change of the composition of property in service. The annual accrual rates were calculated in accordance with the straight line remaining life method of depreciation, using the average service life procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

The annual depreciation accrual rates are applicable specifically to the gas plant in service as of December 31, 2020. For most plant accounts, the application of such rates to future balances that reflect additions subsequent to December 31, 2020, is reasonable for a period of three to five years.

DESCRIPTION OF STATISTICAL SUPPORT

The service life estimates were based on judgment that incorporated statistical analysis of retirement data, discussions with management and consideration of estimates made for other gas utilities. The results of the statistical analysis of service life are presented in the section beginning on page VII-2, within the supporting documents of this report.

For each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of

the original life table(s) plotted on the chart. The survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the curve type designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. The titles of the chart indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The analyses of net salvage data are presented in the section titled, "Net Salvage Statistics". The tabulations present annual cost of removal and gross salvage data, three-year moving averages and the most recent five-year average. Data are shown in dollars and as percentages of original costs retired.

DESCRIPTION OF DETAILED TABULATIONS

A summary of the results of the study, as applied to the original cost of gas plant as of December 31, 2020, is presented on pages VI-5 through VI-8 of this report. The schedule sets forth the original cost, the book depreciation reserve, future accruals, the calculated annual depreciation rate and amount, and the composite remaining life related to gas plant.

The tables of the calculated annual depreciation applicable to depreciable assets as of December 31, 2020 are presented in account sequence starting on page IX-2 of the supporting documents. The tables indicate the estimated survivor curve and net salvage

percent for the account and set forth, for each installation year, the original cost, the calculated accrued depreciation, the allocated book reserve, future accruals, the remaining life, and the calculated annual accrual amount.

NORTHWEST NATURAL GAS COMPANY

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2020

DEPRECIABLE GROUP (1)	PROBABLE RETIREMENT YEAR (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2020 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	ANNUAL ACCRUAL RATE (9)=(8)/(5)	COMPOSITE REMAINING LIFE (10)=(7)/(8)
DEPRECIABLE GAS PLANT									
INTANGIBLE PLANT									
303.10 MISCELLANEOUS INTANGIBLE PLANT - SOFTWARE		15-SQ	0	130,778,162.03	42,277,641	88,500,521	9,317,628	7.12	9.5
303.20 MISCELLANEOUS INTANGIBLE PLANT - CUSTOMER INFORMATION SY		15-SQ	0	32,409,597.11	32,398,247	11,350	1,513	-	7.5
303.30 MISCELLANEOUS INTANGIBLE PLANT - INDUSTRIAL AND COMMERCIA		10-SQ	0	4,146,951.00	4,146,951	0	0	-	-
303.40 MISCELLANEOUS INTANGIBLE PLANT - CRMS		5-SQ	0	4,264,625.00	455,690	3,808,935	846,430	19.85	4.5
TOTAL INTANGIBLE PLANT				171,599,335.14	79,278,529	92,320,806	10,165,571	5.92	
OIL GAS FACILITIES									
305.50 STRUCTURES AND IMPROVEMENTS - OTHER		40-S1	(5)	13,156.00	13,814	0	0	-	-
311.70 LIQUEFIED PETROLEUM GAS EQUIPMENT		20-L0.5	(5)	4,033.00	8,066	16,132	3,477	86.21	4.6
311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT		20-L0.5	(5)	4,209.00	6,585	(2,166)	0	-	-
TOTAL OIL GAS FACILITIES				21,398.00	28,465	13,966	3,477	16.25	
OTHER PRODUCTION FACILITIES									
305.11 STRUCTURES AND IMPROVEMENTS - GAS PRODUCTION		40-S1	(5)	8,320.00	8,736	0	0	-	-
305.17 STRUCTURES AND IMPROVEMENTS - MIXING STATION		40-S1	(5)	46,587.00	51,246	(2,330)	0	-	-
318.30 LIGHT OIL REFINING		45-S2.5	(5)	144,896.00	152,141	0	0	-	-
318.50 TAR PROCESSING		45-S2.5	(5)	243,551.00	255,729	0	0	-	-
319.00 GAS MIXING EQUIPMENT		30-R0.5	(5)	185,448.00	194,720	0	0	-	-
TOTAL OTHER PRODUCTION FACILITIES				628,802.00	662,572	(2,330)	0	-	
UNDERGROUND STORAGE PLANT									
350.20 LAND RIGHTS		70-R4	0	109,624.94	33,571	76,054	1,550	1.41	49.1
351.00 STRUCTURES AND IMPROVEMENTS		60-R3	0	8,634,151.05	3,183,307	5,450,844	129,257	1.50	42.2
352.00 WELLS		50-S3	0	48,342,203.61	17,821,376	30,520,828	881,691	1.82	34.6
352.10 STORAGE LEASEHOLDS AND RIGHTS		55-S2.5	0	3,939,511.52	1,877,200	2,062,312	64,191	1.63	32.1
352.20 RESERVOIRS		55-S2.5	0	10,834,054.54	3,993,229	6,840,826	189,771	1.75	36.0
352.30 NONRECOVERABLE GAS		60-R4	0	6,440,889.82	3,760,889	2,680,001	83,608	1.30	32.1
353.00 LINES		55-S2.5	(15)	10,782,441.99	4,162,308	8,237,500	220,699	2.05	37.3
354.10 COMPRESSOR STATION EQUIPMENT - TURBINE 1		50-R3	(10)	4,154,699.66	3,033,816	1,536,354	68,760	1.65	22.3
354.20 COMPRESSOR STATION EQUIPMENT - TURBINE 2		50-R3	(10)	4,154,699.00	3,095,469	1,474,700	67,896	1.63	21.7
354.30 COMPRESSOR STATION EQUIPMENT - TURBINE 3		50-R3	(10)	14,640,514.36	7,466,735	8,637,831	280,918	1.92	30.7
354.40 COMPRESSOR STATION EQUIPMENT - TURBINE 4		50-R3	(10)	13,664,779.76	6,348,010	8,683,248	267,716	1.96	32.4
354.50 COMPRESSOR STATION EQUIPMENT - TURBINE 5		50-R3	(10)	3,554,433.18	997,616	2,912,260	73,378	2.06	39.7
354.60 COMPRESSOR STATION EQUIPMENT - TURBINE 6		50-R3	(10)	260,041.78	36,859	249,187	5,585	2.15	44.6
355.00 MEASURING AND REGULATING EQUIPMENT		45-S2	(10)	18,671,983.61	7,611,612	12,927,570	421,049	2.25	30.7
356.00 PURIFICATION EQUIPMENT		45-S2.5	(5)	28,182,836.19	329,223	29,262,755	663,643	2.35	44.1
357.00 OTHER EQUIPMENT		35-R4	0	4,659,987.72	1,048,877	3,611,111	117,066	2.51	30.8
TOTAL UNDERGROUND STORAGE PLANT				181,026,852.73	64,800,097	125,163,381	3,536,778	1.95	

NORTHWEST NATURAL GAS COMPANY

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2020

DEPRECIABLE GROUP (1)	PROBABLE RETIREMENT YEAR (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2020 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	ANNUAL ACCRUAL RATE (9)=(8)/(5)	COMPOSITE REMAINING LIFE (10)=(7)/(8)
LOCAL STORAGE PLANT									
361.00 STRUCTURES AND IMPROVEMENTS									
LINNTON	06-2036	60-R2.5	*	10,716,040.15	3,568,422	7,683,420	504,072	4.70	15.2
NEWPORT	06-2042	60-R2.5	*	12,124,670.23	3,667,556	9,063,348	437,238	3.61	20.7
OTHER		60-R2.5	(5)	26,757.00	12,839	15,256	414	1.55	36.9
TOTAL STRUCTURES AND IMPROVEMENTS				22,867,467.38	7,248,817	16,762,024	941,724	4.12	17.8
362.00 GAS HOLDERS									
LINNTON	06-2036	60-R3	*	4,556,064.35	2,687,761	2,779,516	188,391	4.13	14.8
NEWPORT	06-2042	60-R3	*	5,927,103.82	6,181,983	930,542	52,571	0.89	17.7
OTHER		60-R3	(20)	1,600.14	1,266	654	15	0.94	43.6
TOTAL GAS HOLDERS				10,484,768.31	8,871,010	3,710,712	240,977	2.30	15.4
363.10 LIQUEFACTION EQUIPMENT									
LINNTON	06-2036	55-R2	*	3,450,201.82	2,737,274	885,438	59,074	1.71	15.0
NEWPORT	06-2042	55-R2	*	15,748,403.83	7,452,351	9,083,473	447,428	2.84	20.3
TOTAL LIQUEFACTION EQUIPMENT				19,198,605.65	10,189,625	9,968,911	506,502	2.64	19.7
363.20 VAPORIZING EQUIPMENT									
LINNTON	06-2036	40-R4	*	4,458,618.00	2,493,915	2,187,634	149,696	3.36	14.6
NEWPORT	06-2042	40-R4	*	6,707,648.71	562,843	6,480,188	311,211	4.64	20.8
TOTAL VAPORIZING EQUIPMENT				11,166,266.71	3,056,758	8,667,822	460,907	4.13	18.8
363.30 COMPRESSOR EQUIPMENT									
LINNTON	06-2036	35-R1.5	*	180,903.23	154,597	35,351	2,831	1.56	12.5
NEWPORT	06-2042	35-R1.5	*	4,744,494.04	1,486,694	3,495,025	181,995	3.84	19.2
TOTAL COMPRESSOR EQUIPMENT				4,925,397.27	1,641,291	3,530,376	184,826	3.75	19.1
363.40 MEASURING AND REGULATING EQUIPMENT									
LINNTON	06-2036	50-R4	*	3,244,884.69	914,115	2,493,014	171,812	5.29	14.5
NEWPORT	06-2042	50-R4	*	10,663,386.23	278,977	10,917,579	512,867	4.81	21.3
TOTAL MEASURING AND REGULATING EQUIPMENT				13,908,270.92	1,193,092	13,410,593	684,679	4.92	19.6
363.50 CNG REFUELING FACILITIES									
363.60 LNG REFUELING FACILITIES									
		31-R3	(5)	3,051,295.49	1,591,921	1,611,939	79,206	2.60	20.4
		45-S2.5	(5)	739,473.00	739,473	36,974	1,820	0.25	20.3
TOTAL LOCAL STORAGE PLANT				86,341,544.73	34,531,987	57,699,351	3,100,641	3.59	
TRANSMISSION PLANT									
365.20 LAND RIGHTS									
366.30 STRUCTURES AND IMPROVEMENTS									
LINNTON		75-R4	0	6,455,176.86	2,322,594	4,132,583	84,208	1.30	49.1
NEWPORT		55-R3	0	1,546,072.61	412,870	1,133,203	27,003	1.75	42.0
OTHER		70-R3	(40)	188,276,558.85	35,068,866	228,518,316	3,729,301	1.98	61.3
TOTAL MAINS - NORTH MIST		70-R3	(40)	1,994,582.39	1,245,979	1,546,436	33,588	1.68	46.0
TOTAL MAINS - SOUTH MIST		70-R3	(40)	14,949,264.00	11,490,417	9,438,553	232,439	1.55	40.6
TOTAL MAINS - SOUTH MIST		70-R3	(40)	34,881,341.36	15,930,670	32,903,208	660,479	1.90	49.8
TOTAL MAINS - 11.7M S MIST		70-R3	(40)	17,466,181.89	6,835,289	17,617,366	331,527	1.89	53.1
TOTAL MAINS - 12M NORTH S MIST		70-R3	(40)	18,613,651.15	6,984,265	19,074,847	356,054	1.91	53.6
TOTAL MAINS - 38M NORTH S MIST		70-R3	(40)	68,232,675.58	25,782,091	69,743,655	1,302,252	1.91	53.6
368.00 COMPRESSOR STATION EQUIPMENT		45-R3	(5)	7,723,454.21	2,884,478	5,225,149	158,338	2.05	33.0
369.00 MEASURING AND REGULATING EQUIPMENT		50-R2.5	(10)	3,969,550.28	1,823,192	2,543,313	71,661	1.81	35.5
TOTAL TRANSMISSION PLANT				364,108,509.18	110,780,711	391,876,629	6,986,850	1.92	

NORTHWEST NATURAL GAS COMPANY

TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2020

DEPRECIABLE GROUP (1)	PROBABLE RETIREMENT YEAR (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2020 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	ANNUAL ACCRUAL RATE (9)=(8)/(5)	COMPOSITE REMAINING LIFE (10)=(7)/(8)
DISTRIBUTION PLANT									
374.20		75-R3	0	1,886,180.64	1,702,286	183,895	3,079	0.16	59.7
375.00		35-S0	0	1,519,558.28	135,155	1,384,403	53,310	3.51	26.0
376.11		68-R3	(75)	658,475,597.80	357,154,000	795,178,296	16,425,871	2.49	48.4
376.12		68-R3	(75)	665,678,335.92	257,577,034	907,360,054	17,629,793	2.65	51.5
377.00		30-S3	(5)	818,380.00	688,761	170,538	1,929	1.58	13.2
378.00		55-R2.5	(25)	41,139,658.95	13,074,028	38,350,546	907,949	2.21	42.2
379.00		50-R2	(25)	18,110,616.93	3,212,848	19,425,423	423,933	2.34	45.8
380.00		65-R2	(100)	875,426,720.52	444,534,925	1,306,318,516	26,190,374	2.99	49.9
381.00		30-L1	0	106,548,353.39	22,306,515	84,241,838	4,021,015	3.77	21.0
381.10		16-S4	0	1,696,938.46	1,386,751	310,187	36,445	2.15	8.5
381.20		16-R2	0	43,676,207.05	19,996,313	23,679,894	2,808,304	6.43	8.4
382.00		26-L1	0	64,212,622.94	4,154,436	60,058,187	4,003,336	6.23	15.0
382.10		14-L3	0	481,019.77	162,824	318,196	51,075	10.62	6.2
382.20		18-R3	0	9,174,695.76	6,045,561	3,129,135	392,322	4.28	8.0
383.00		35-S2	0	2,553,747.52	467,032	2,086,716	73,428	2.88	28.4
386.00		10-S6	0	1,162,110.41	388,027	774,083	119,090	10.25	6.5
387.10		30-S3	0	173,858.98	146,273	27,586	1,693	0.97	16.3
387.20		23-S0.5	0	96,424.00	96,424	0	0	-	-
387.30		25-S4	0	72,671.00	72,671	0	0	-	-
TOTAL DISTRIBUTION PLANT				2,492,903,698.32	1,133,301,864	3,242,997,493	73,153,946	2.93	
GENERAL PLANT									
390.00		48-S0	(5)	76,076,719.92	15,137,283	64,743,273	1,596,868	2.10	40.5
390.10		48-S0	(5)	21,288,272.24	6,048,763	16,303,923	388,018	1.82	42.0
391.10		20-SQ	0	17,096,600.38	4,023,370	13,073,230	855,517	5.00	15.3
391.20		5-SQ	0	54,361,086.44	20,496,560	33,864,526	10,872,979	20.00	3.1
392.00		13-L2	15	54,519,109.80	14,675,021	31,666,222	3,681,303	6.75	8.6
393.00		FULLY ACCRUED		119,406.00	119,406	0	0	-	-
394.00		25-SQ	0	16,925,338.80	5,180,775	11,744,564	677,012	4.00	17.3
396.00		17-L1.5	20	14,021,593.89	2,966,394	8,250,881	660,604	4.71	12.5
397.00		15-SQ	0	67,400.78	45,230	22,171	4,494	6.67	4.9
397.10		10-SQ	0	4,256,889.70	640,080	3,616,810	425,688	10.00	8.5
397.20		15-SQ	0	9,957.65	4,980	4,978	664	6.67	7.5
397.30		15-SQ	0	6,759,709.02	1,343,445	5,416,264	450,853	6.67	12.0
397.40		15-SQ	0	5,723,453.25	1,066,715	4,656,738	382,030	6.67	12.2
397.50		10-SQ	0	490,766.50	339,930	150,836	49,076	10.00	3.1
398.10		15-SQ	0	4,359.31	3,342	1,017	291	6.67	3.5
398.20		15-SQ	0	28,864.84	9,505	19,360	1,924	6.67	10.1
398.30		FULLY ACCRUED		14,873.00	14,873	0	0	-	-
398.40		FULLY ACCRUED		10,120.00	10,120	0	0	-	-
398.50		FULLY ACCRUED		66,739.00	66,739	0	0	-	-
TOTAL GENERAL PLANT				271,841,260.52	72,192,531	193,534,793	20,047,321	7.37	

NORTHWEST NATURAL GAS COMPANY

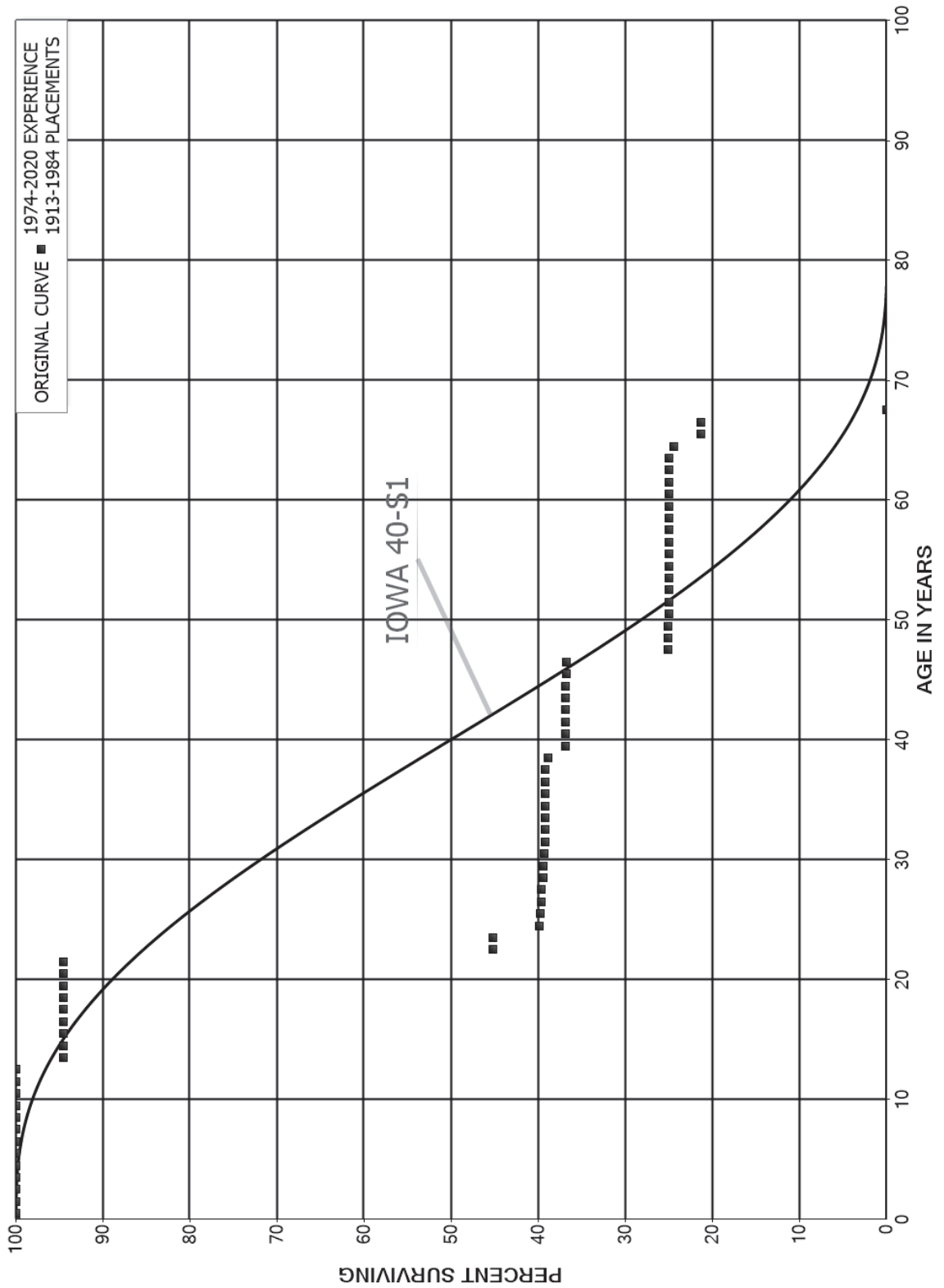
TABLE 1. SUMMARY OF ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2020

DEPRECIABLE GROUP (1)	PROBABLE RETIREMENT YEAR (2)	SURVIVOR CURVE (3)	NET SALVAGE PERCENT (4)	ORIGINAL COST AS OF DECEMBER 31, 2020 (5)	BOOK DEPRECIATION RESERVE (6)	FUTURE ACCRUALS (7)	CALCULATED ANNUAL ACCRUAL AMOUNT (8)	(9)=(8)/(5)	COMPOSITE REMAINING LIFE (10)=(7)/(8)
RESERVE ADJUSTMENT FOR AMORTIZATION									
391.10	OFFICE FURNITURE AND EQUIPMENT				1,979,631		(395,926)	**	
391.20	OFFICE FURNITURE AND EQUIPMENT - COMPUTERS				1,887,272		(377,454)	**	
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT				843,257		(168,651)	**	
395.00	LABORATORY EQUIPMENT				(22)		4	**	
397.00	COMMUNICATION EQUIPMENT				(4,236)		847	**	
397.10	COMMUNICATION EQUIPMENT - MOBILE				(34,713)		6,943	**	
397.20	COMMUNICATION EQUIPMENT - NON-MOBILE AND TELEMETER				(32,872)		6,574	**	
397.30	COMMUNICATION EQUIPMENT - TELEMETER OTHER				(560,130)		112,026	**	
397.40	COMMUNICATION EQUIPMENT - TELEMETER MICROWAVE				(298,740)		59,748	**	
397.50	COMMUNICATION EQUIPMENT - TELEPHONE				131,075		(26,215)	**	
398.10	MISCELLANEOUS EQUIPMENT - PRINT SHOP				(53)		11	**	
398.20	MISCELLANEOUS EQUIPMENT - KITCHEN				(1,747)		349	**	
	TOTAL RESERVE ADJUSTMENT FOR AMORTIZATION				3,908,722		(781,744)		
	TOTAL DEPRECIABLE GAS PLANT			3,568,471,400.62	1,499,485,478	4,103,604,089	116,212,840	3.26	
NONDEPRECIABLE GAS PLANT									
301.00	ORGANIZATION			1,174.00					
302.00	FRANCHISES AND CONSENTS			83,621.00					
304.10	LAND			24,998.00					
350.10	LAND			106,549.00					
360.11	LAND - LNG LINNONTON			83,598.00					
360.12	LAND - LNG NEWPORT			536,675.00					
360.20	LAND - OTHER			106,557.00					
365.10	LAND			1,015,597.00					
374.10	LAND			211,682.00					
389.00	LAND			13,063,368.00	437,351				
	ROU UTILITY LEASE				8,415,272				
	FIN UTILITY LEASE				28,977				
	TOTAL NONDEPRECIABLE GAS PLANT			15,233,829.00	8,881,600				
	TOTAL GAS PLANT IN SERVICE			3,583,705,229.62	1,508,367,078				

* INDICATES INTERIM SURVIVOR CURVE. EACH UNIT HAS A UNIQUE TERMINAL DATE.
** 5 YEAR AMORTIZATION OF RESERVE RELATED TO AMORTIZATION ACCOUNTING.

PART VII. SERVICE LIFE STATISTICS

NORTHWEST NATURAL GAS COMPANY
 ACCOUNTS 305.11, 305.17 AND 305.50 STRUCTURES AND IMPROVEMENTS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 305.11, 305.17 AND 305.50 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1913-1984			EXPERIENCE BAND 1974-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,156		0.0000	1.0000	100.00
0.5	13,156		0.0000	1.0000	100.00
1.5	13,156		0.0000	1.0000	100.00
2.5	13,156		0.0000	1.0000	100.00
3.5	13,156		0.0000	1.0000	100.00
4.5	13,156		0.0000	1.0000	100.00
5.5	13,156		0.0000	1.0000	100.00
6.5	14,409		0.0000	1.0000	100.00
7.5	16,221		0.0000	1.0000	100.00
8.5	16,221		0.0000	1.0000	100.00
9.5	16,221		0.0000	1.0000	100.00
10.5	24,541		0.0000	1.0000	100.00
11.5	22,729		0.0000	1.0000	100.00
12.5	22,729	1,253	0.0551	0.9449	100.00
13.5	21,476		0.0000	1.0000	94.49
14.5	21,476		0.0000	1.0000	94.49
15.5	34,048		0.0000	1.0000	94.49
16.5	34,048		0.0000	1.0000	94.49
17.5	87,775		0.0000	1.0000	94.49
18.5	88,093		0.0000	1.0000	94.49
19.5	88,420		0.0000	1.0000	94.49
20.5	163,371		0.0000	1.0000	94.49
21.5	163,715	85,500	0.5222	0.4778	94.49
22.5	78,108		0.0000	1.0000	45.14
23.5	78,545	9,163	0.1167	0.8833	45.14
24.5	69,586	211	0.0030	0.9970	39.88
25.5	69,375	327	0.0047	0.9953	39.75
26.5	94,601		0.0000	1.0000	39.57
27.5	94,601	344	0.0036	0.9964	39.57
28.5	94,257		0.0000	1.0000	39.42
29.5	94,257	437	0.0046	0.9954	39.42
30.5	93,820	204	0.0022	0.9978	39.24
31.5	94,256		0.0000	1.0000	39.15
32.5	98,581		0.0000	1.0000	39.15
33.5	98,581		0.0000	1.0000	39.15
34.5	98,581		0.0000	1.0000	39.15
35.5	98,671		0.0000	1.0000	39.15
36.5	85,515		0.0000	1.0000	39.15
37.5	85,564	640	0.0075	0.9925	39.15
38.5	85,197	4,325	0.0508	0.9492	38.86

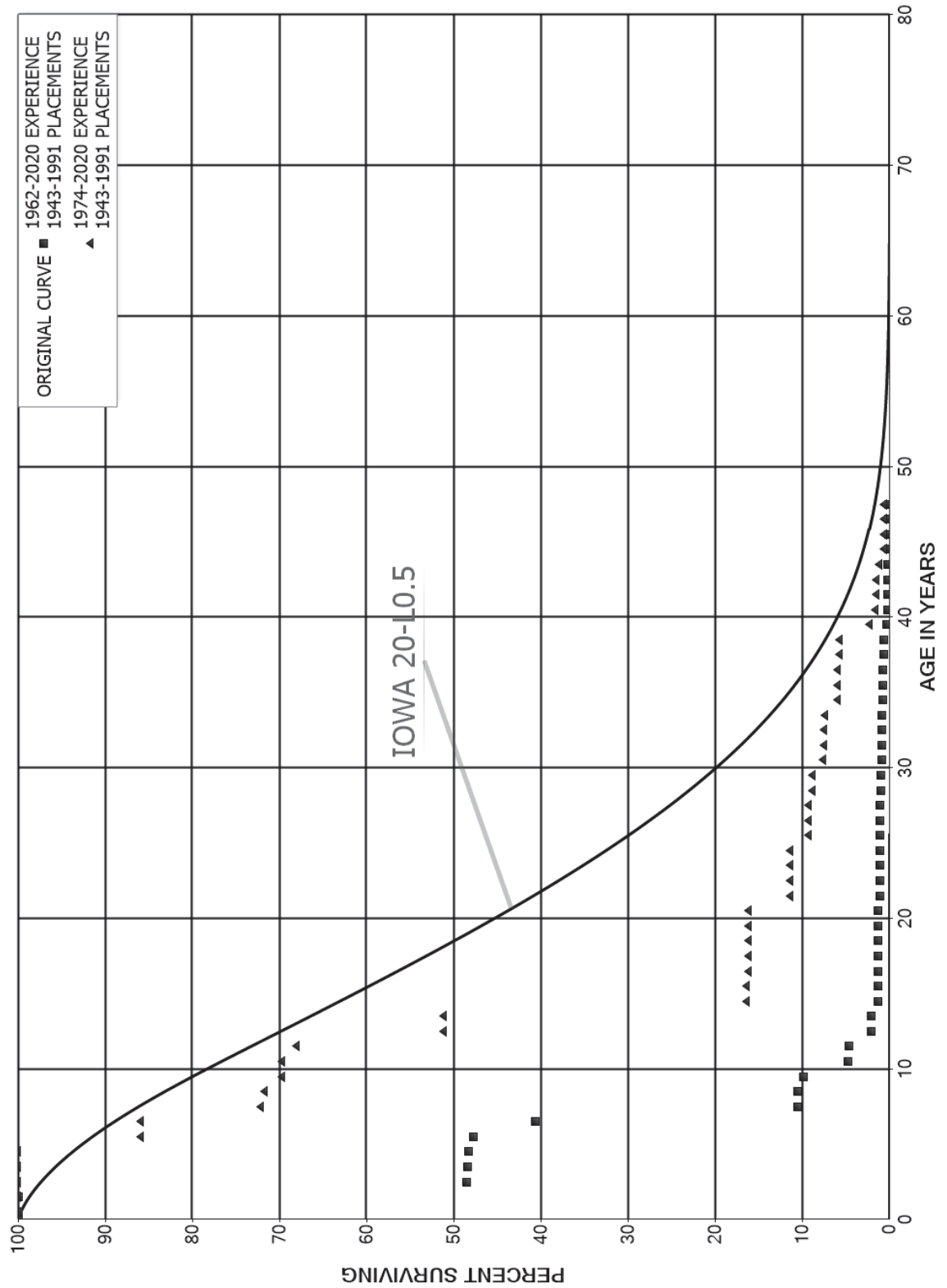
NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 305.11, 305.17 AND 305.50 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1913-1984			EXPERIENCE BAND 1974-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	80,872		0.0000	1.0000	36.89
40.5	80,872		0.0000	1.0000	36.89
41.5	80,872	90	0.0011	0.9989	36.89
42.5	83,479		0.0000	1.0000	36.85
43.5	83,749	49	0.0006	0.9994	36.85
44.5	83,700	273	0.0033	0.9967	36.83
45.5	83,427		0.0000	1.0000	36.71
46.5	80,730	25,553	0.3165	0.6835	36.71
47.5	55,177		0.0000	1.0000	25.09
48.5	55,239		0.0000	1.0000	25.09
49.5	55,239	270	0.0049	0.9951	25.09
50.5	54,969		0.0000	1.0000	24.97
51.5	54,969		0.0000	1.0000	24.97
52.5	54,969		0.0000	1.0000	24.97
53.5	54,969		0.0000	1.0000	24.97
54.5	54,986	62	0.0011	0.9989	24.97
55.5	54,924		0.0000	1.0000	24.94
56.5	54,924		0.0000	1.0000	24.94
57.5	47,621		0.0000	1.0000	24.94
58.5	48,471		0.0000	1.0000	24.94
59.5	48,471		0.0000	1.0000	24.94
60.5	54,110	17	0.0003	0.9997	24.94
61.5	54,093		0.0000	1.0000	24.93
62.5	52,070		0.0000	1.0000	24.93
63.5	52,070	1,017	0.0195	0.9805	24.93
64.5	6,489	850	0.1310	0.8690	24.44
65.5	5,639		0.0000	1.0000	21.24
66.5	5,639	5,639	1.0000		21.24
67.5					

NORTHWEST NATURAL GAS COMPANY
 ACCOUNTS 311.70 AND 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 311.70 AND 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-1991			EXPERIENCE BAND 1962-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	63,128		0.0000	1.0000	100.00
0.5	68,628		0.0000	1.0000	100.00
1.5	141,412	72,784	0.5147	0.4853	100.00
2.5	75,680	200	0.0026	0.9974	48.53
3.5	70,180	150	0.0021	0.9979	48.40
4.5	87,543	1,077	0.0123	0.9877	48.30
5.5	89,904	13,319	0.1481	0.8519	47.70
6.5	90,123	66,829	0.7415	0.2585	40.64
7.5	91,254	203	0.0022	0.9978	10.50
8.5	106,323	6,441	0.0606	0.9394	10.48
9.5	106,542	55,848	0.5242	0.4758	9.85
10.5	106,855	1,207	0.0113	0.9887	4.68
11.5	201,105	109,727	0.5456	0.4544	4.63
12.5	91,708		0.0000	1.0000	2.10
13.5	264,428	101,568	0.3841	0.6159	2.10
14.5	172,942		0.0000	1.0000	1.30
15.5	173,374	513	0.0030	0.9970	1.30
16.5	173,767	47	0.0003	0.9997	1.29
17.5	174,013		0.0000	1.0000	1.29
18.5	196,426		0.0000	1.0000	1.29
19.5	196,426	368	0.0019	0.9981	1.29
20.5	196,058	26,365	0.1345	0.8655	1.29
21.5	169,693	136	0.0008	0.9992	1.12
22.5	169,557		0.0000	1.0000	1.12
23.5	169,557		0.0000	1.0000	1.12
24.5	169,557	12,335	0.0727	0.9273	1.12
25.5	157,222		0.0000	1.0000	1.03
26.5	157,222		0.0000	1.0000	1.03
27.5	157,222	7,052	0.0449	0.9551	1.03
28.5	150,170		0.0000	1.0000	0.99
29.5	150,170	17,363	0.1156	0.8844	0.99
30.5	132,807	2,361	0.0178	0.9822	0.87
31.5	130,446	219	0.0017	0.9983	0.86
32.5	130,227	1,131	0.0087	0.9913	0.86
33.5	129,096	25,301	0.1960	0.8040	0.85
34.5	103,795	219	0.0021	0.9979	0.68
35.5	103,576	313	0.0030	0.9970	0.68
36.5	103,263	3,205	0.0310	0.9690	0.68
37.5	100,058	180	0.0018	0.9982	0.66
38.5	99,878	62,202	0.6228	0.3772	0.66

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 311.70 AND 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1943-1991			EXPERIENCE BAND 1962-2020			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	37,676	11,900	0.3159	0.6841	0.25	
40.5	25,776	432	0.0168	0.9832	0.17	
41.5	25,344	393	0.0155	0.9845	0.17	
42.5	24,951	6,196	0.2483	0.7517	0.16	
43.5	18,755	10,513	0.5605	0.4395	0.12	
44.5	8,242		0.0000	1.0000	0.05	
45.5	4,033		0.0000	1.0000	0.05	
46.5	4,033		0.0000	1.0000	0.05	
47.5	627		0.0000	1.0000	0.05	
48.5	627		0.0000	1.0000	0.05	
49.5	627		0.0000	1.0000	0.05	
50.5	627		0.0000	1.0000	0.05	
51.5	627		0.0000	1.0000	0.05	
52.5	627		0.0000	1.0000	0.05	
53.5	627		0.0000	1.0000	0.05	
54.5	627		0.0000	1.0000	0.05	
55.5	627		0.0000	1.0000	0.05	
56.5	403		0.0000	1.0000	0.05	
57.5					0.05	

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 311.70 AND 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1943-1991

EXPERIENCE BAND 1974-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,209		0.0000	1.0000	100.00
0.5	13,115		0.0000	1.0000	100.00
1.5	13,115		0.0000	1.0000	100.00
2.5	13,115		0.0000	1.0000	100.00
3.5	7,615		0.0000	1.0000	100.00
4.5	7,615	1,077	0.1414	0.8586	100.00
5.5	7,615		0.0000	1.0000	85.86
6.5	7,983	1,285	0.1610	0.8390	85.86
7.5	34,348	203	0.0059	0.9941	72.04
8.5	34,484	980	0.0284	0.9716	71.61
9.5	34,708		0.0000	1.0000	69.58
10.5	50,793	1,207	0.0238	0.9762	69.58
11.5	63,128	15,682	0.2484	0.7516	67.92
12.5	47,446		0.0000	1.0000	51.05
13.5	149,014	101,568	0.6816	0.3184	51.05
14.5	54,498		0.0000	1.0000	16.25
15.5	54,498	513	0.0094	0.9906	16.25
16.5	71,861	47	0.0007	0.9993	16.10
17.5	74,222		0.0000	1.0000	16.09
18.5	74,441		0.0000	1.0000	16.09
19.5	75,572	368	0.0049	0.9951	16.09
20.5	90,273	26,365	0.2921	0.7079	16.01
21.5	64,127	136	0.0021	0.9979	11.34
22.5	64,304		0.0000	1.0000	11.31
23.5	64,509		0.0000	1.0000	11.31
24.5	64,839	12,335	0.1902	0.8098	11.31
25.5	123,656		0.0000	1.0000	9.16
26.5	133,738		0.0000	1.0000	9.16
27.5	134,170	7,052	0.0526	0.9474	9.16
28.5	127,511		0.0000	1.0000	8.68
29.5	127,757	17,363	0.1359	0.8641	8.68
30.5	132,807	2,361	0.0178	0.9822	7.50
31.5	130,446	219	0.0017	0.9983	7.37
32.5	130,227	1,131	0.0087	0.9913	7.35
33.5	129,096	25,301	0.1960	0.8040	7.29
34.5	103,795	219	0.0021	0.9979	5.86
35.5	103,576	313	0.0030	0.9970	5.85
36.5	103,263	3,205	0.0310	0.9690	5.83
37.5	100,058	180	0.0018	0.9982	5.65
38.5	99,878	62,202	0.6228	0.3772	5.64

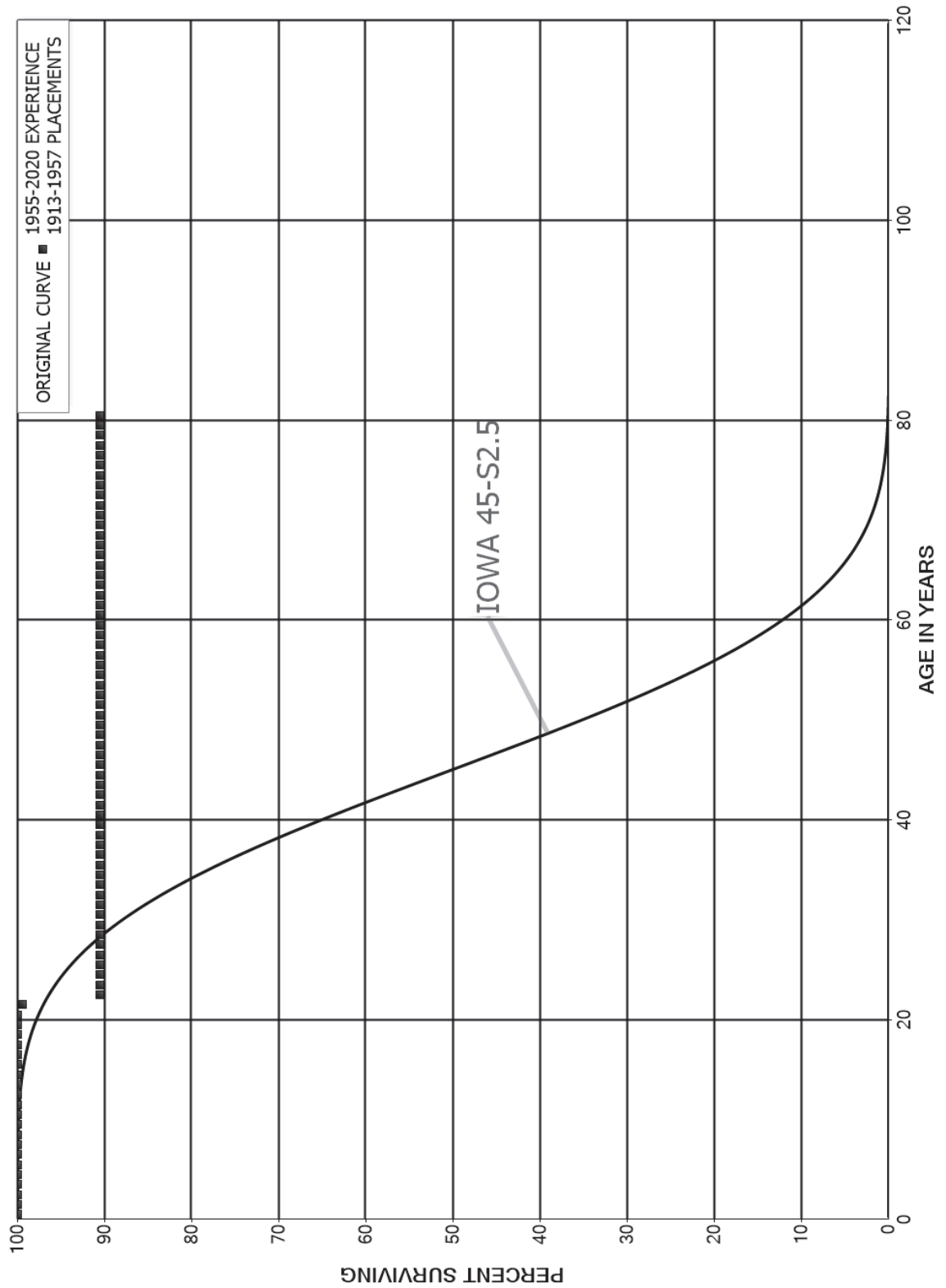
NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 311.70 AND 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1943-1991			EXPERIENCE BAND 1974-2020			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	37,676	11,900	0.3159	0.6841	2.13	
40.5	25,776	432	0.0168	0.9832	1.46	
41.5	25,344	393	0.0155	0.9845	1.43	
42.5	24,951	6,196	0.2483	0.7517	1.41	
43.5	18,755	10,513	0.5605	0.4395	1.06	
44.5	8,242		0.0000	1.0000	0.47	
45.5	4,033		0.0000	1.0000	0.47	
46.5	4,033		0.0000	1.0000	0.47	
47.5	627		0.0000	1.0000	0.47	
48.5	627		0.0000	1.0000	0.47	
49.5	627		0.0000	1.0000	0.47	
50.5	627		0.0000	1.0000	0.47	
51.5	627		0.0000	1.0000	0.47	
52.5	627		0.0000	1.0000	0.47	
53.5	627		0.0000	1.0000	0.47	
54.5	627		0.0000	1.0000	0.47	
55.5	627		0.0000	1.0000	0.47	
56.5	403		0.0000	1.0000	0.47	
57.5					0.47	

NORTHWEST NATURAL GAS COMPANY
ACCOUNTS 318.30 AND 318.50 RESIDUAL REFINING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 318.30 AND 318.50 RESIDUAL REFINING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1913-1957			EXPERIENCE BAND 1955-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,189		0.0000	1.0000	100.00
0.5	10,049		0.0000	1.0000	100.00
1.5	136,338		0.0000	1.0000	100.00
2.5	151,712		0.0000	1.0000	100.00
3.5	179,823		0.0000	1.0000	100.00
4.5	194,359		0.0000	1.0000	100.00
5.5	194,950		0.0000	1.0000	100.00
6.5	201,811		0.0000	1.0000	100.00
7.5	259,718		0.0000	1.0000	100.00
8.5	259,718		0.0000	1.0000	100.00
9.5	259,718		0.0000	1.0000	100.00
10.5	267,855		0.0000	1.0000	100.00
11.5	319,464		0.0000	1.0000	100.00
12.5	319,464		0.0000	1.0000	100.00
13.5	384,746		0.0000	1.0000	100.00
14.5	408,285		0.0000	1.0000	100.00
15.5	408,285		0.0000	1.0000	100.00
16.5	408,285		0.0000	1.0000	100.00
17.5	408,285	263	0.0006	0.9994	100.00
18.5	408,022		0.0000	1.0000	99.94
19.5	408,022		0.0000	1.0000	99.94
20.5	408,022	2,294	0.0056	0.9944	99.94
21.5	405,728	36,343	0.0896	0.9104	99.37
22.5	369,385		0.0000	1.0000	90.47
23.5	369,385		0.0000	1.0000	90.47
24.5	369,385		0.0000	1.0000	90.47
25.5	369,385		0.0000	1.0000	90.47
26.5	369,385		0.0000	1.0000	90.47
27.5	369,385		0.0000	1.0000	90.47
28.5	376,125		0.0000	1.0000	90.47
29.5	376,125		0.0000	1.0000	90.47
30.5	376,125		0.0000	1.0000	90.47
31.5	384,419		0.0000	1.0000	90.47
32.5	384,419		0.0000	1.0000	90.47
33.5	384,419		0.0000	1.0000	90.47
34.5	384,419		0.0000	1.0000	90.47
35.5	384,419		0.0000	1.0000	90.47
36.5	384,419		0.0000	1.0000	90.47
37.5	384,419		0.0000	1.0000	90.47
38.5	384,419		0.0000	1.0000	90.47

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 318.30 AND 318.50 RESIDUAL REFINING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1913-1957			EXPERIENCE BAND 1955-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	384,419		0.0000	1.0000	90.47
40.5	384,419		0.0000	1.0000	90.47
41.5	388,447		0.0000	1.0000	90.47
42.5	388,447		0.0000	1.0000	90.47
43.5	388,447		0.0000	1.0000	90.47
44.5	388,447		0.0000	1.0000	90.47
45.5	388,447		0.0000	1.0000	90.47
46.5	388,447		0.0000	1.0000	90.47
47.5	388,447		0.0000	1.0000	90.47
48.5	388,447		0.0000	1.0000	90.47
49.5	388,447		0.0000	1.0000	90.47
50.5	388,447		0.0000	1.0000	90.47
51.5	388,447		0.0000	1.0000	90.47
52.5	388,447		0.0000	1.0000	90.47
53.5	388,447		0.0000	1.0000	90.47
54.5	388,447		0.0000	1.0000	90.47
55.5	388,447		0.0000	1.0000	90.47
56.5	388,447		0.0000	1.0000	90.47
57.5	388,447		0.0000	1.0000	90.47
58.5	388,447		0.0000	1.0000	90.47
59.5	388,447		0.0000	1.0000	90.47
60.5	388,447		0.0000	1.0000	90.47
61.5	388,447		0.0000	1.0000	90.47
62.5	388,447		0.0000	1.0000	90.47
63.5	387,494		0.0000	1.0000	90.47
64.5	387,331		0.0000	1.0000	90.47
65.5	385,521		0.0000	1.0000	90.47
66.5	380,955		0.0000	1.0000	90.47
67.5	291,009		0.0000	1.0000	90.47
68.5	275,635		0.0000	1.0000	90.47
69.5	247,524		0.0000	1.0000	90.47
70.5	232,988		0.0000	1.0000	90.47
71.5	232,397		0.0000	1.0000	90.47
72.5	225,536		0.0000	1.0000	90.47
73.5	167,629		0.0000	1.0000	90.47
74.5	167,629		0.0000	1.0000	90.47
75.5	167,629		0.0000	1.0000	90.47
76.5	159,492		0.0000	1.0000	90.47
77.5	107,883		0.0000	1.0000	90.47
78.5	107,883		0.0000	1.0000	90.47

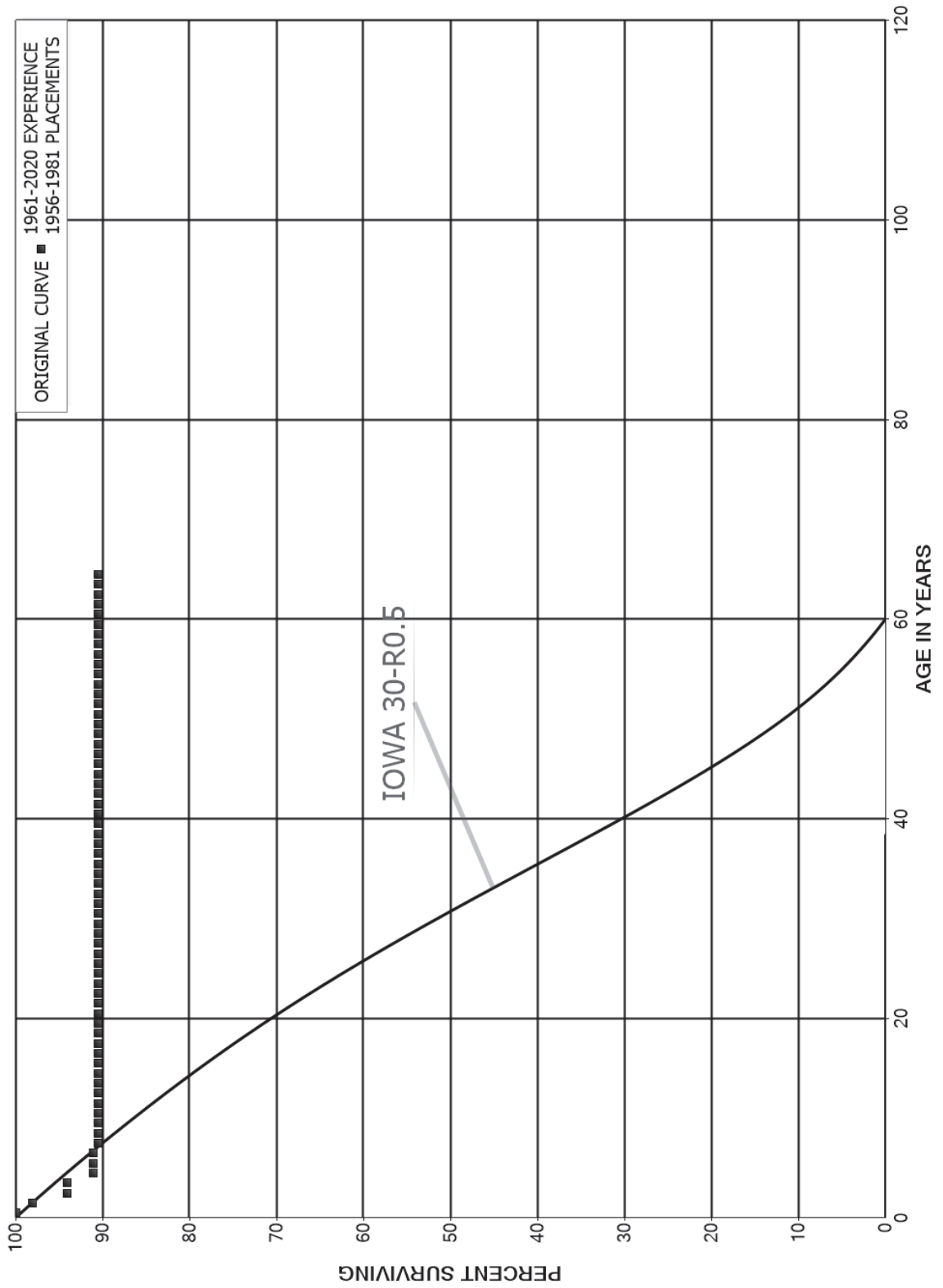
NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 318.30 AND 318.50 RESIDUAL REFINING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1913-1957			EXPERIENCE BAND 1955-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	42,601		0.0000	1.0000	90.47
80.5	19,062		0.0000	1.0000	90.47
81.5	19,062		0.0000	1.0000	90.47
82.5	19,062		0.0000	1.0000	90.47
83.5	19,062		0.0000	1.0000	90.47
84.5	19,062		0.0000	1.0000	90.47
85.5	19,062		0.0000	1.0000	90.47
86.5	19,062		0.0000	1.0000	90.47
87.5	19,062		0.0000	1.0000	90.47
88.5	19,062		0.0000	1.0000	90.47
89.5	19,062		0.0000	1.0000	90.47
90.5	19,062		0.0000	1.0000	90.47
91.5	19,062		0.0000	1.0000	90.47
92.5	19,062		0.0000	1.0000	90.47
93.5	19,062		0.0000	1.0000	90.47
94.5	12,322		0.0000	1.0000	90.47
95.5	12,322		0.0000	1.0000	90.47
96.5	12,322		0.0000	1.0000	90.47
97.5	4,028		0.0000	1.0000	90.47
98.5	4,028		0.0000	1.0000	90.47
99.5	4,028		0.0000	1.0000	90.47
100.5	4,028		0.0000	1.0000	90.47
101.5	4,028		0.0000	1.0000	90.47
102.5	4,028		0.0000	1.0000	90.47
103.5	4,028		0.0000	1.0000	90.47
104.5	4,028		0.0000	1.0000	90.47
105.5	4,028		0.0000	1.0000	90.47
106.5	4,028		0.0000	1.0000	90.47
107.5					90.47

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 319.00 GAS MIXING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 319.00 GAS MIXING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1956-1981

EXPERIENCE BAND 1961-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	18,655		0.0000	1.0000	100.00
0.5	18,932	376	0.0199	0.9801	100.00
1.5	19,149	770	0.0402	0.9598	98.01
2.5	24,885		0.0000	1.0000	94.07
3.5	40,405	1,300	0.0322	0.9678	94.07
4.5	185,448		0.0000	1.0000	91.05
5.5	185,448		0.0000	1.0000	91.05
6.5	185,448	1,025	0.0055	0.9945	91.05
7.5	185,448		0.0000	1.0000	90.54
8.5	185,448		0.0000	1.0000	90.54
9.5	185,448		0.0000	1.0000	90.54
10.5	185,448		0.0000	1.0000	90.54
11.5	185,448		0.0000	1.0000	90.54
12.5	185,448		0.0000	1.0000	90.54
13.5	185,448		0.0000	1.0000	90.54
14.5	185,448		0.0000	1.0000	90.54
15.5	185,448		0.0000	1.0000	90.54
16.5	185,448		0.0000	1.0000	90.54
17.5	185,448		0.0000	1.0000	90.54
18.5	185,448		0.0000	1.0000	90.54
19.5	185,448		0.0000	1.0000	90.54
20.5	185,448		0.0000	1.0000	90.54
21.5	185,448		0.0000	1.0000	90.54
22.5	185,448		0.0000	1.0000	90.54
23.5	185,448		0.0000	1.0000	90.54
24.5	185,448		0.0000	1.0000	90.54
25.5	185,448		0.0000	1.0000	90.54
26.5	185,448		0.0000	1.0000	90.54
27.5	185,448		0.0000	1.0000	90.54
28.5	185,448		0.0000	1.0000	90.54
29.5	185,448		0.0000	1.0000	90.54
30.5	185,448		0.0000	1.0000	90.54
31.5	185,448		0.0000	1.0000	90.54
32.5	185,448		0.0000	1.0000	90.54
33.5	185,448		0.0000	1.0000	90.54
34.5	185,448		0.0000	1.0000	90.54
35.5	185,448		0.0000	1.0000	90.54
36.5	185,448		0.0000	1.0000	90.54
37.5	185,448		0.0000	1.0000	90.54
38.5	185,448		0.0000	1.0000	90.54

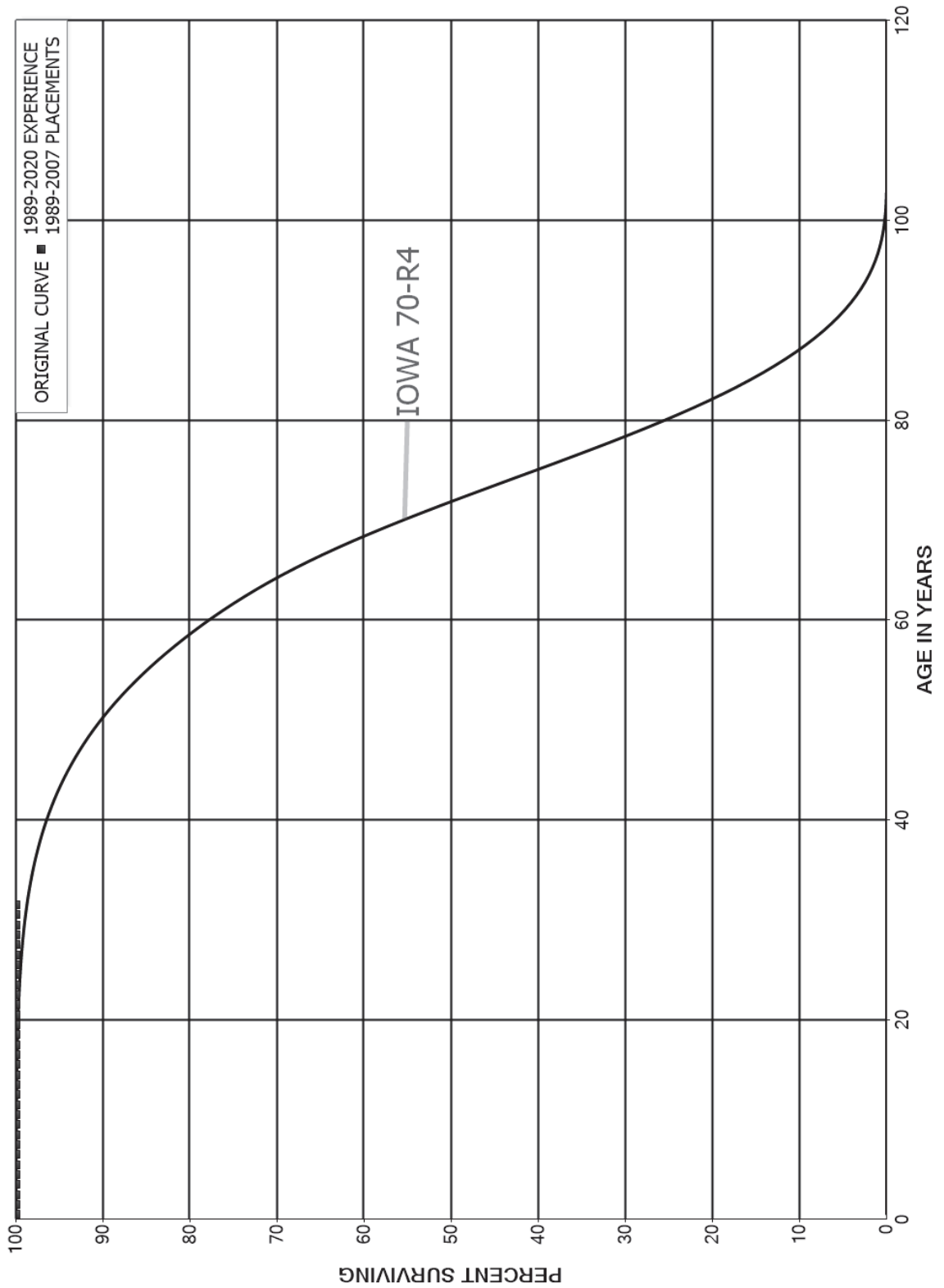
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 319.00 GAS MIXING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1956-1981			EXPERIENCE BAND 1961-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	181,891		0.0000	1.0000	90.54
40.5	169,470		0.0000	1.0000	90.54
41.5	169,470		0.0000	1.0000	90.54
42.5	169,470		0.0000	1.0000	90.54
43.5	169,470		0.0000	1.0000	90.54
44.5	169,470		0.0000	1.0000	90.54
45.5	169,470		0.0000	1.0000	90.54
46.5	169,470		0.0000	1.0000	90.54
47.5	169,470		0.0000	1.0000	90.54
48.5	169,470		0.0000	1.0000	90.54
49.5	169,470		0.0000	1.0000	90.54
50.5	169,470		0.0000	1.0000	90.54
51.5	169,470		0.0000	1.0000	90.54
52.5	169,470		0.0000	1.0000	90.54
53.5	169,381		0.0000	1.0000	90.54
54.5	169,381		0.0000	1.0000	90.54
55.5	169,381		0.0000	1.0000	90.54
56.5	168,460		0.0000	1.0000	90.54
57.5	168,460		0.0000	1.0000	90.54
58.5	166,793		0.0000	1.0000	90.54
59.5	166,793		0.0000	1.0000	90.54
60.5	166,516		0.0000	1.0000	90.54
61.5	166,299		0.0000	1.0000	90.54
62.5	160,563		0.0000	1.0000	90.54
63.5	145,043		0.0000	1.0000	90.54
64.5					90.54

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 350.20 LAND RIGHTS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



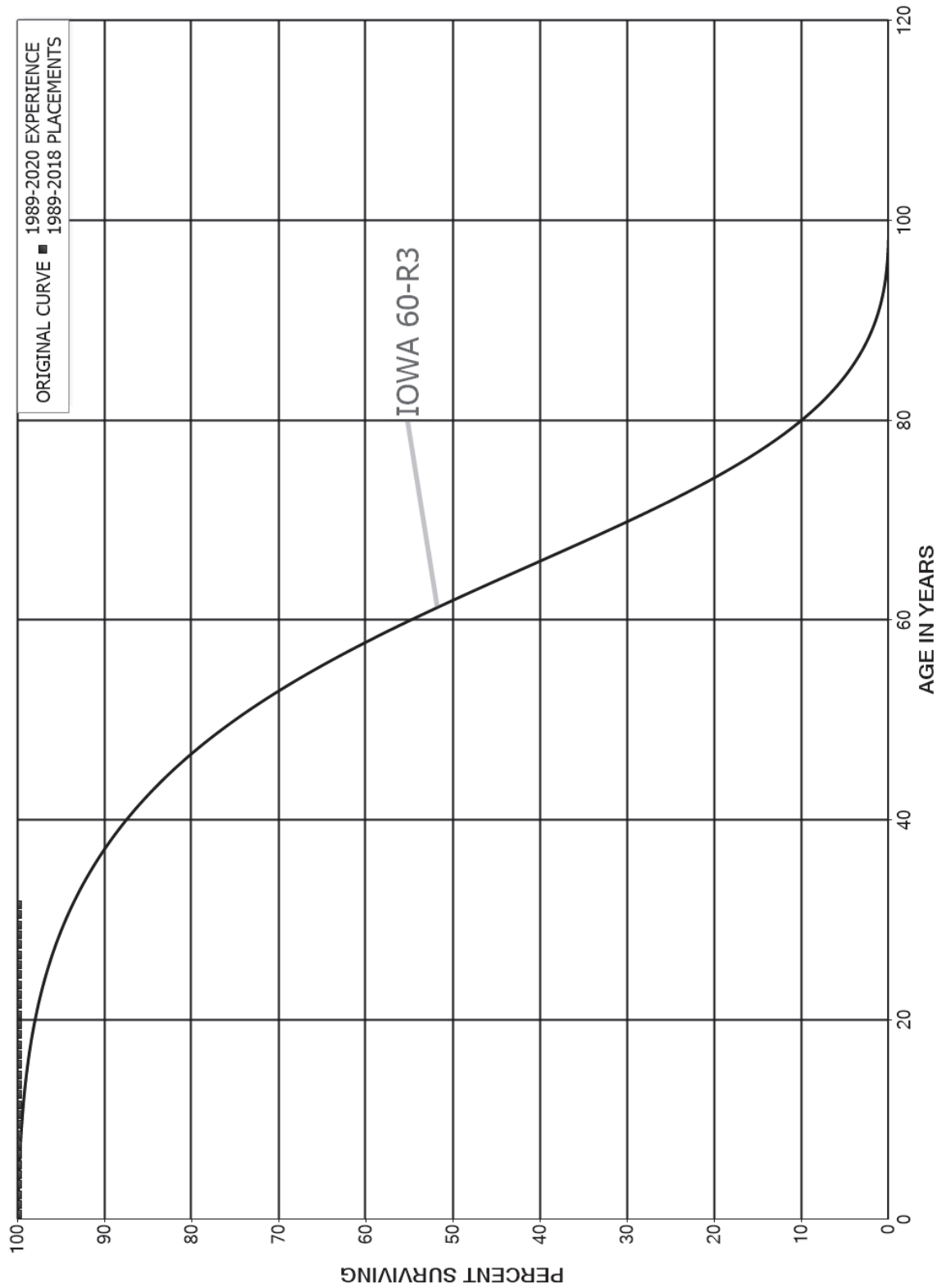
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 350.20 LAND RIGHTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2007			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	109,625		0.0000	1.0000	100.00
0.5	109,625		0.0000	1.0000	100.00
1.5	109,625		0.0000	1.0000	100.00
2.5	109,625		0.0000	1.0000	100.00
3.5	109,625		0.0000	1.0000	100.00
4.5	109,625		0.0000	1.0000	100.00
5.5	109,625		0.0000	1.0000	100.00
6.5	109,625		0.0000	1.0000	100.00
7.5	109,625		0.0000	1.0000	100.00
8.5	109,625		0.0000	1.0000	100.00
9.5	109,625		0.0000	1.0000	100.00
10.5	109,625		0.0000	1.0000	100.00
11.5	109,625		0.0000	1.0000	100.00
12.5	109,625		0.0000	1.0000	100.00
13.5	51,122		0.0000	1.0000	100.00
14.5	51,122		0.0000	1.0000	100.00
15.5	51,122		0.0000	1.0000	100.00
16.5	51,122		0.0000	1.0000	100.00
17.5	51,122		0.0000	1.0000	100.00
18.5	51,122		0.0000	1.0000	100.00
19.5	47,318		0.0000	1.0000	100.00
20.5	47,318		0.0000	1.0000	100.00
21.5	47,318		0.0000	1.0000	100.00
22.5	46,690		0.0000	1.0000	100.00
23.5	46,505		0.0000	1.0000	100.00
24.5	46,505		0.0000	1.0000	100.00
25.5	46,505		0.0000	1.0000	100.00
26.5	46,105		0.0000	1.0000	100.00
27.5	40,841		0.0000	1.0000	100.00
28.5	40,841		0.0000	1.0000	100.00
29.5	40,841		0.0000	1.0000	100.00
30.5	40,841		0.0000	1.0000	100.00
31.5					100.00

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 351.00 STRUCTURES AND IMPROVEMENTS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



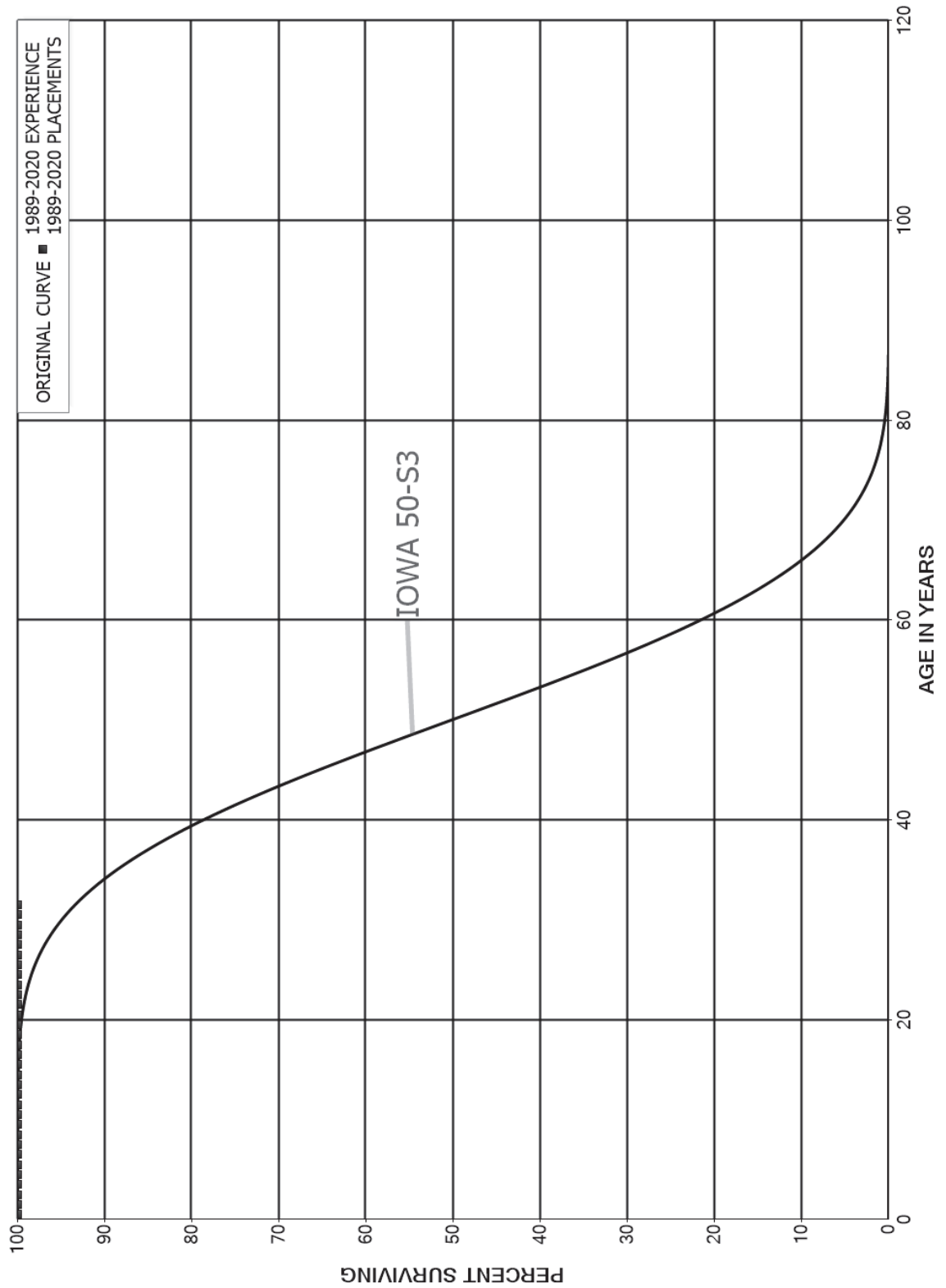
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 351.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2018			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	8,650,347		0.0000	1.0000	100.00
0.5	8,650,347		0.0000	1.0000	100.00
1.5	8,634,151		0.0000	1.0000	100.00
2.5	7,382,069		0.0000	1.0000	100.00
3.5	7,208,245		0.0000	1.0000	100.00
4.5	7,208,245		0.0000	1.0000	100.00
5.5	7,141,840		0.0000	1.0000	100.00
6.5	6,715,064		0.0000	1.0000	100.00
7.5	6,715,064		0.0000	1.0000	100.00
8.5	6,555,425		0.0000	1.0000	100.00
9.5	6,555,425		0.0000	1.0000	100.00
10.5	6,542,426		0.0000	1.0000	100.00
11.5	6,538,592		0.0000	1.0000	100.00
12.5	6,247,670		0.0000	1.0000	100.00
13.5	6,247,670		0.0000	1.0000	100.00
14.5	6,247,670		0.0000	1.0000	100.00
15.5	6,247,546		0.0000	1.0000	100.00
16.5	6,173,312		0.0000	1.0000	100.00
17.5	6,156,413		0.0000	1.0000	100.00
18.5	5,913,514		0.0000	1.0000	100.00
19.5	5,029,273		0.0000	1.0000	100.00
20.5	4,996,462		0.0000	1.0000	100.00
21.5	4,991,499		0.0000	1.0000	100.00
22.5	2,516,340		0.0000	1.0000	100.00
23.5	2,516,340		0.0000	1.0000	100.00
24.5	2,516,340		0.0000	1.0000	100.00
25.5	2,480,692		0.0000	1.0000	100.00
26.5	2,467,430		0.0000	1.0000	100.00
27.5	2,464,204		0.0000	1.0000	100.00
28.5	2,422,299		0.0000	1.0000	100.00
29.5	2,146,801		0.0000	1.0000	100.00
30.5	2,101,010		0.0000	1.0000	100.00
31.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 352.00 WELLS
ORIGINAL AND SMOOTH SURVIVOR CURVES



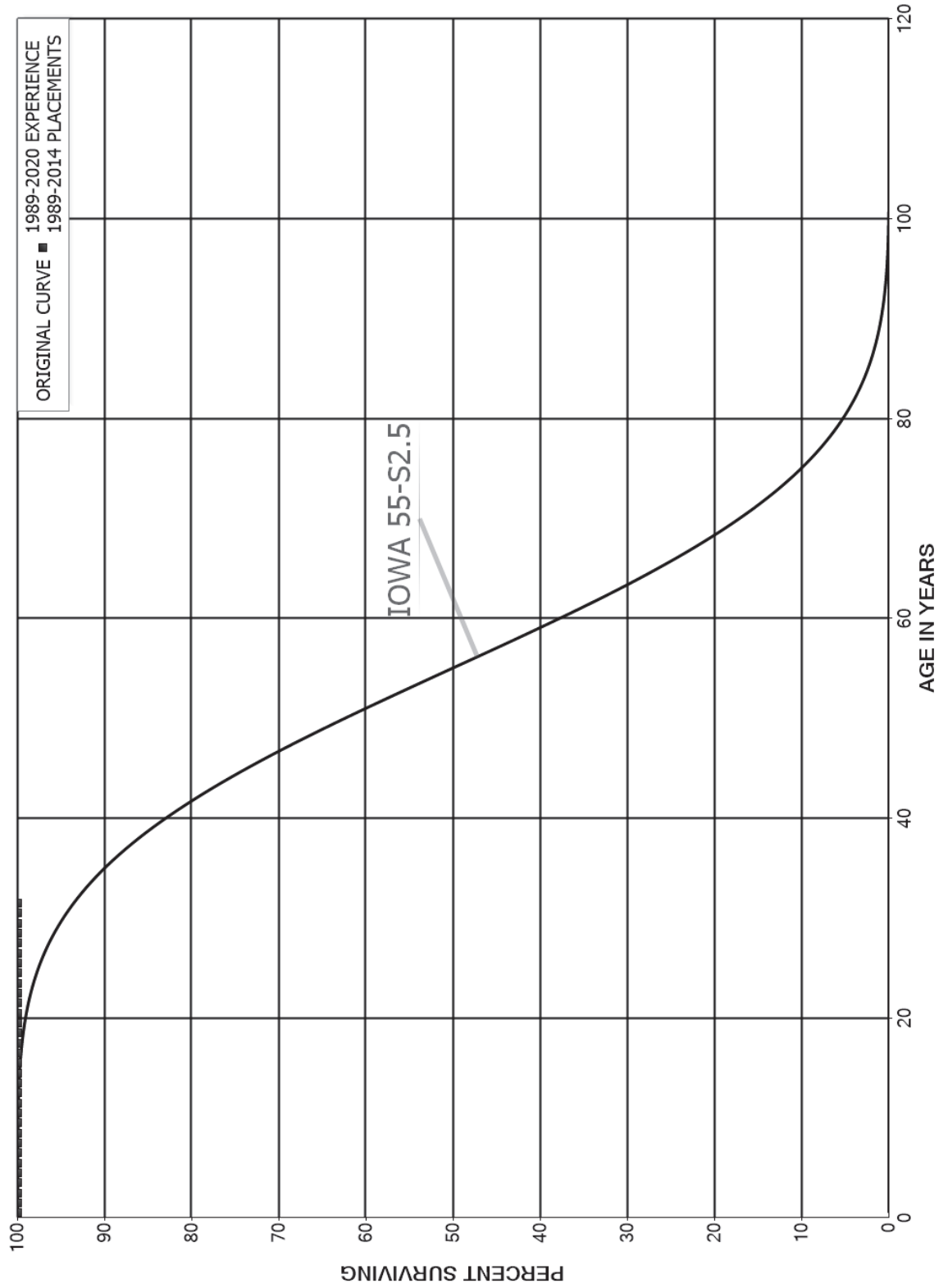
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.00 WELLS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2020			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	50,153,416		0.0000	1.0000	100.00
0.5	43,704,716		0.0000	1.0000	100.00
1.5	40,216,428		0.0000	1.0000	100.00
2.5	36,987,527		0.0000	1.0000	100.00
3.5	36,987,527		0.0000	1.0000	100.00
4.5	36,987,527		0.0000	1.0000	100.00
5.5	36,987,527		0.0000	1.0000	100.00
6.5	36,987,527		0.0000	1.0000	100.00
7.5	36,987,527		0.0000	1.0000	100.00
8.5	36,970,027		0.0000	1.0000	100.00
9.5	36,970,027		0.0000	1.0000	100.00
10.5	36,970,027		0.0000	1.0000	100.00
11.5	36,138,659		0.0000	1.0000	100.00
12.5	36,138,659		0.0000	1.0000	100.00
13.5	27,363,189		0.0000	1.0000	100.00
14.5	27,363,189		0.0000	1.0000	100.00
15.5	23,510,122		0.0000	1.0000	100.00
16.5	18,383,091		0.0000	1.0000	100.00
17.5	18,338,288		0.0000	1.0000	100.00
18.5	18,338,288		0.0000	1.0000	100.00
19.5	18,138,203		0.0000	1.0000	100.00
20.5	18,138,203		0.0000	1.0000	100.00
21.5	18,138,203		0.0000	1.0000	100.00
22.5	11,810,679		0.0000	1.0000	100.00
23.5	11,810,679		0.0000	1.0000	100.00
24.5	11,810,679		0.0000	1.0000	100.00
25.5	11,810,679		0.0000	1.0000	100.00
26.5	11,808,321		0.0000	1.0000	100.00
27.5	11,625,429		0.0000	1.0000	100.00
28.5	11,474,852		0.0000	1.0000	100.00
29.5	9,469,844		0.0000	1.0000	100.00
30.5	8,933,762		0.0000	1.0000	100.00
31.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 352.10 STORAGE LEASEHOLDS AND RIGHTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



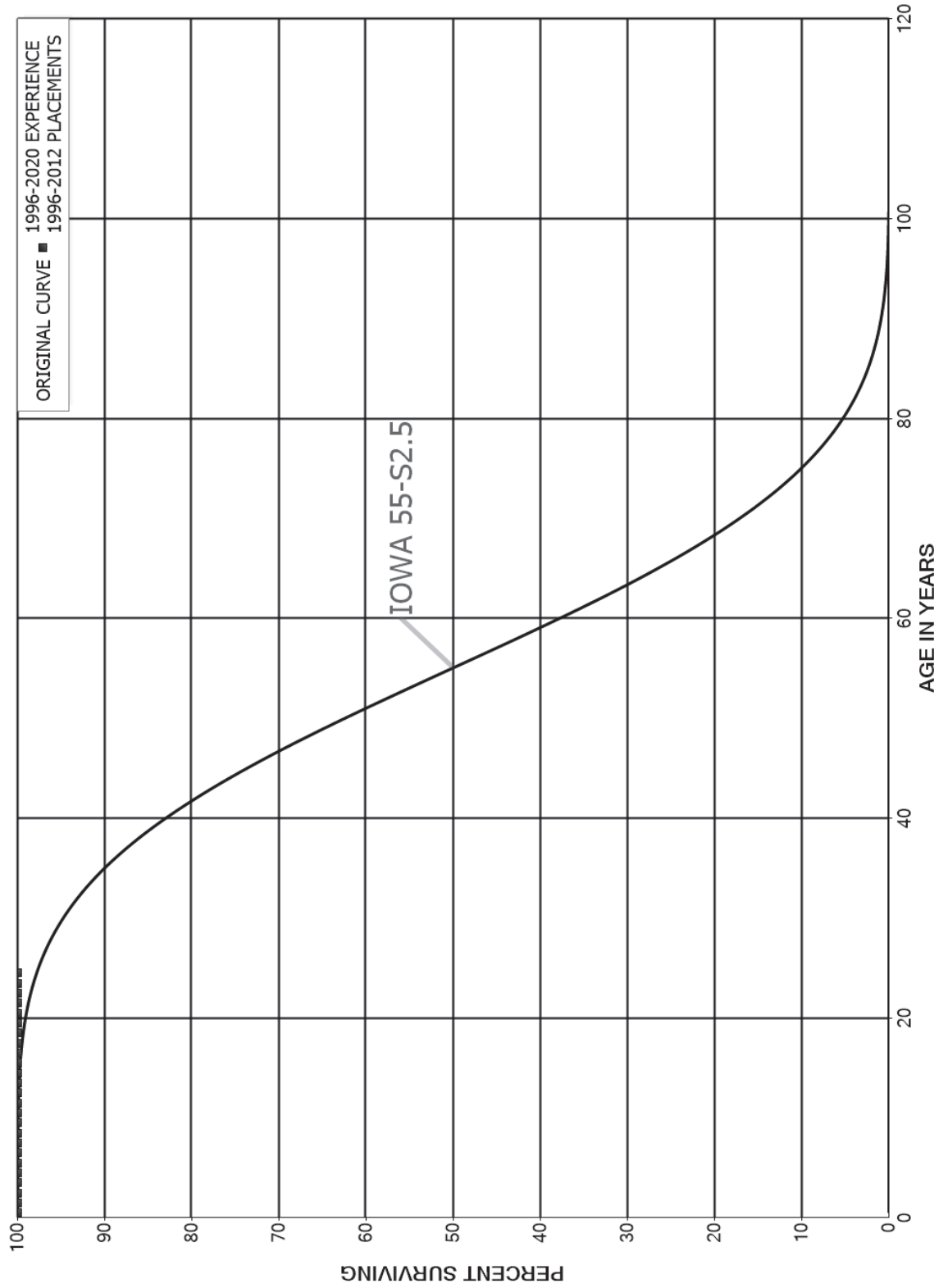
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.10 STORAGE LEASEHOLDS AND RIGHTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2014			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,939,513		0.0000	1.0000	100.00
0.5	3,939,512		0.0000	1.0000	100.00
1.5	3,939,512		0.0000	1.0000	100.00
2.5	3,939,512		0.0000	1.0000	100.00
3.5	3,939,512		0.0000	1.0000	100.00
4.5	3,939,512		0.0000	1.0000	100.00
5.5	3,939,512		0.0000	1.0000	100.00
6.5	3,539,512		0.0000	1.0000	100.00
7.5	3,539,512		0.0000	1.0000	100.00
8.5	3,539,512		0.0000	1.0000	100.00
9.5	3,539,512		0.0000	1.0000	100.00
10.5	3,539,512		0.0000	1.0000	100.00
11.5	3,539,512		0.0000	1.0000	100.00
12.5	3,539,512		0.0000	1.0000	100.00
13.5	3,539,512		0.0000	1.0000	100.00
14.5	3,539,512		0.0000	1.0000	100.00
15.5	3,539,512		0.0000	1.0000	100.00
16.5	3,538,491		0.0000	1.0000	100.00
17.5	3,538,491		0.0000	1.0000	100.00
18.5	3,535,500		0.0000	1.0000	100.00
19.5	3,535,500		0.0000	1.0000	100.00
20.5	3,535,500		0.0000	1.0000	100.00
21.5	3,530,407		0.0000	1.0000	100.00
22.5	3,038,080		0.0000	1.0000	100.00
23.5	1,448,101		0.0000	1.0000	100.00
24.5	1,210,801		0.0000	1.0000	100.00
25.5	1,210,801		0.0000	1.0000	100.00
26.5	1,210,801		0.0000	1.0000	100.00
27.5	1,210,800		0.0000	1.0000	100.00
28.5	1,210,800		0.0000	1.0000	100.00
29.5	1,210,800		0.0000	1.0000	100.00
30.5	1,210,800		0.0000	1.0000	100.00
31.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 352.20 RESERVOIRS
ORIGINAL AND SMOOTH SURVIVOR CURVES



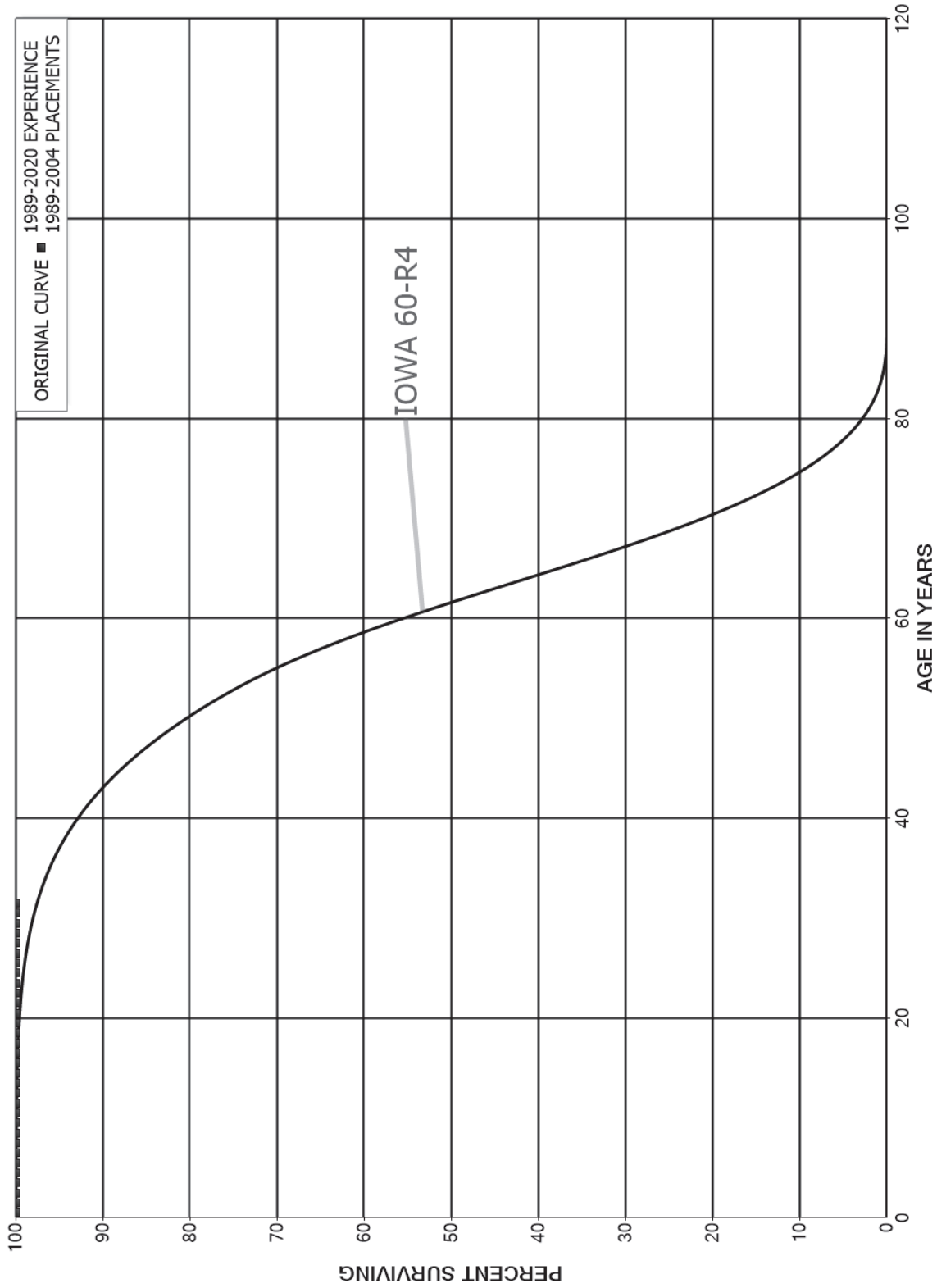
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.20 RESERVOIRS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1996-2012			EXPERIENCE BAND 1996-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	7,303,798		0.0000	1.0000	100.00
0.5	7,303,798		0.0000	1.0000	100.00
1.5	7,303,798		0.0000	1.0000	100.00
2.5	9,211,060		0.0000	1.0000	100.00
3.5	9,211,060		0.0000	1.0000	100.00
4.5	10,834,055		0.0000	1.0000	100.00
5.5	10,834,055		0.0000	1.0000	100.00
6.5	10,834,055		0.0000	1.0000	100.00
7.5	10,834,055		0.0000	1.0000	100.00
8.5	10,816,555		0.0000	1.0000	100.00
9.5	10,816,555		0.0000	1.0000	100.00
10.5	10,816,555		0.0000	1.0000	100.00
11.5	10,816,555		0.0000	1.0000	100.00
12.5	10,816,555		0.0000	1.0000	100.00
13.5	11,963,401		0.0000	1.0000	100.00
14.5	11,963,401		0.0000	1.0000	100.00
15.5	8,371,537		0.0000	1.0000	100.00
16.5	7,159,166		0.0000	1.0000	100.00
17.5	7,159,166		0.0000	1.0000	100.00
18.5	4,161,435		0.0000	1.0000	100.00
19.5	4,161,435		0.0000	1.0000	100.00
20.5	3,685,094		0.0000	1.0000	100.00
21.5	3,679,091		0.0000	1.0000	100.00
22.5	1,679,184		0.0000	1.0000	100.00
23.5	1,679,184		0.0000	1.0000	100.00
24.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 352.30 NONRECOVERABLE GAS
ORIGINAL AND SMOOTH SURVIVOR CURVES



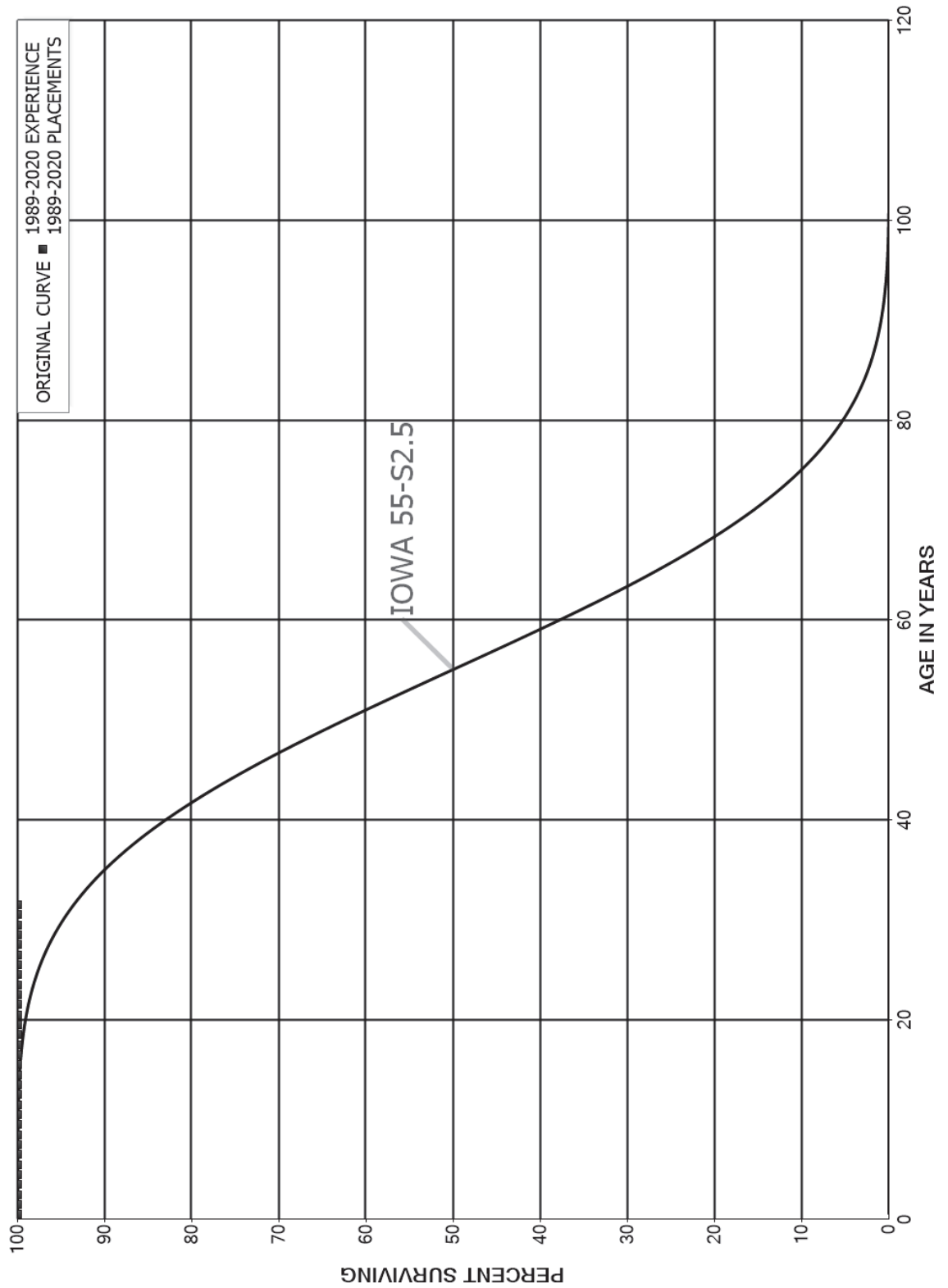
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.30 NONRECOVERABLE GAS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2004			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	6,440,891		0.0000	1.0000	100.00
0.5	6,440,890		0.0000	1.0000	100.00
1.5	6,440,890		0.0000	1.0000	100.00
2.5	6,440,890		0.0000	1.0000	100.00
3.5	6,440,890		0.0000	1.0000	100.00
4.5	6,440,890		0.0000	1.0000	100.00
5.5	6,440,890		0.0000	1.0000	100.00
6.5	6,440,890		0.0000	1.0000	100.00
7.5	6,440,890		0.0000	1.0000	100.00
8.5	6,440,890		0.0000	1.0000	100.00
9.5	6,440,890		0.0000	1.0000	100.00
10.5	6,440,890		0.0000	1.0000	100.00
11.5	6,440,890		0.0000	1.0000	100.00
12.5	6,440,890		0.0000	1.0000	100.00
13.5	6,440,890		0.0000	1.0000	100.00
14.5	6,440,890		0.0000	1.0000	100.00
15.5	6,440,890		0.0000	1.0000	100.00
16.5	6,375,402		0.0000	1.0000	100.00
17.5	6,375,402		0.0000	1.0000	100.00
18.5	6,375,402		0.0000	1.0000	100.00
19.5	6,375,402		0.0000	1.0000	100.00
20.5	6,375,402		0.0000	1.0000	100.00
21.5	6,375,402		0.0000	1.0000	100.00
22.5	6,312,953		0.0000	1.0000	100.00
23.5	6,312,953		0.0000	1.0000	100.00
24.5	4,057,953		0.0000	1.0000	100.00
25.5	4,057,953		0.0000	1.0000	100.00
26.5	4,057,953		0.0000	1.0000	100.00
27.5	4,057,952		0.0000	1.0000	100.00
28.5	4,057,952		0.0000	1.0000	100.00
29.5	4,057,952		0.0000	1.0000	100.00
30.5	4,057,952		0.0000	1.0000	100.00
31.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 353.00 LINES
ORIGINAL AND SMOOTH SURVIVOR CURVES



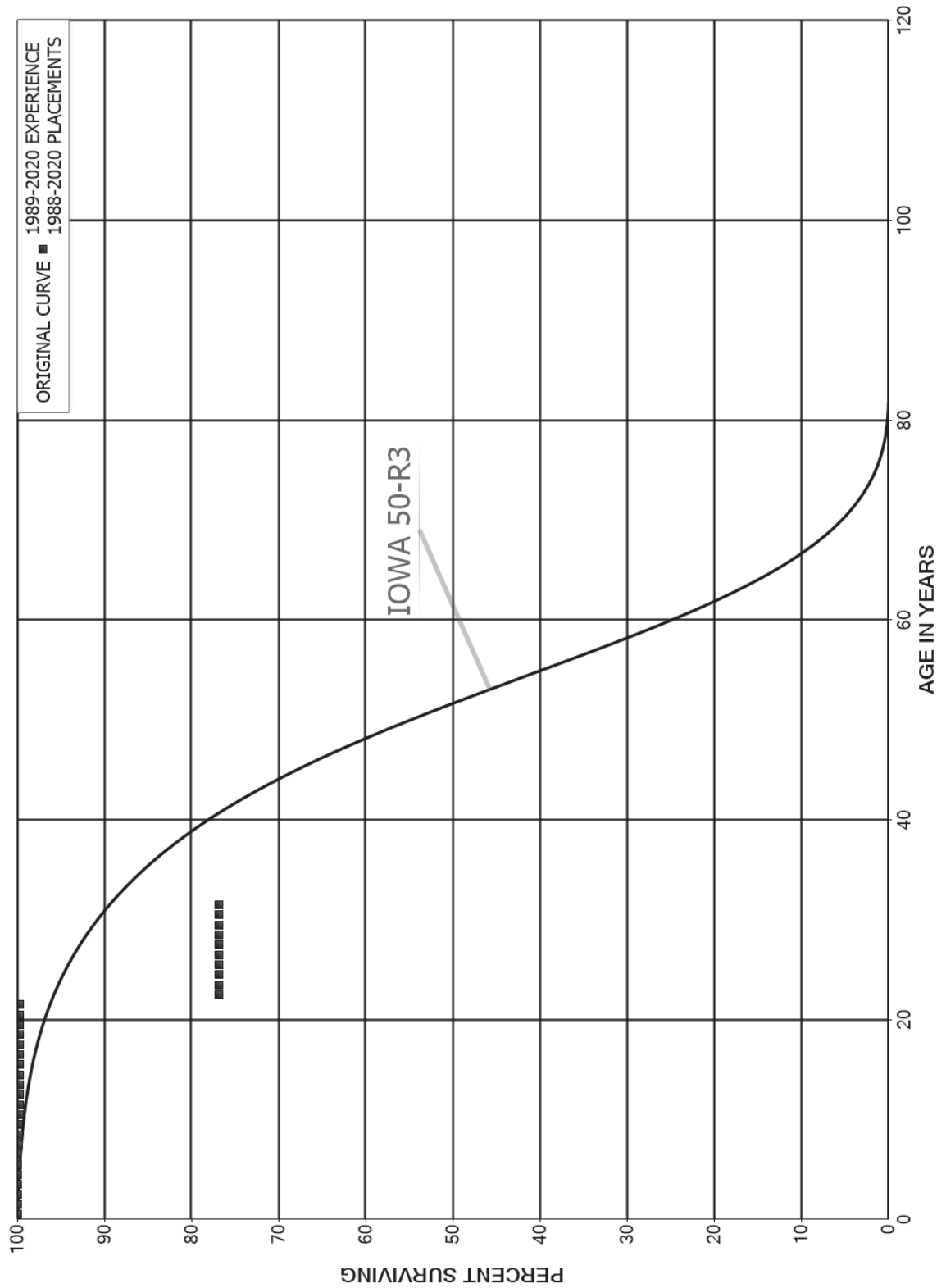
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 353.00 LINES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2020			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	10,813,929		0.0000	1.0000	100.00
0.5	10,702,254		0.0000	1.0000	100.00
1.5	9,535,478		0.0000	1.0000	100.00
2.5	8,201,964		0.0000	1.0000	100.00
3.5	8,201,964		0.0000	1.0000	100.00
4.5	8,201,964		0.0000	1.0000	100.00
5.5	8,201,964		0.0000	1.0000	100.00
6.5	8,201,964		0.0000	1.0000	100.00
7.5	8,201,964		0.0000	1.0000	100.00
8.5	8,201,964		0.0000	1.0000	100.00
9.5	8,201,964		0.0000	1.0000	100.00
10.5	8,201,964		0.0000	1.0000	100.00
11.5	8,201,964		0.0000	1.0000	100.00
12.5	8,201,964		0.0000	1.0000	100.00
13.5	7,641,810		0.0000	1.0000	100.00
14.5	7,641,810		0.0000	1.0000	100.00
15.5	7,137,450		0.0000	1.0000	100.00
16.5	6,453,175		0.0000	1.0000	100.00
17.5	6,445,334		0.0000	1.0000	100.00
18.5	6,445,334		0.0000	1.0000	100.00
19.5	6,445,334		0.0000	1.0000	100.00
20.5	6,445,334		0.0000	1.0000	100.00
21.5	6,392,472		0.0000	1.0000	100.00
22.5	2,538,843		0.0000	1.0000	100.00
23.5	2,538,843		0.0000	1.0000	100.00
24.5	2,538,843		0.0000	1.0000	100.00
25.5	2,538,843		0.0000	1.0000	100.00
26.5	2,538,843		0.0000	1.0000	100.00
27.5	2,538,842		0.0000	1.0000	100.00
28.5	2,538,842		0.0000	1.0000	100.00
29.5	2,521,353		0.0000	1.0000	100.00
30.5	2,521,353		0.0000	1.0000	100.00
31.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNTS 354.10 THROUGH 354.60 COMPRESSOR STATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



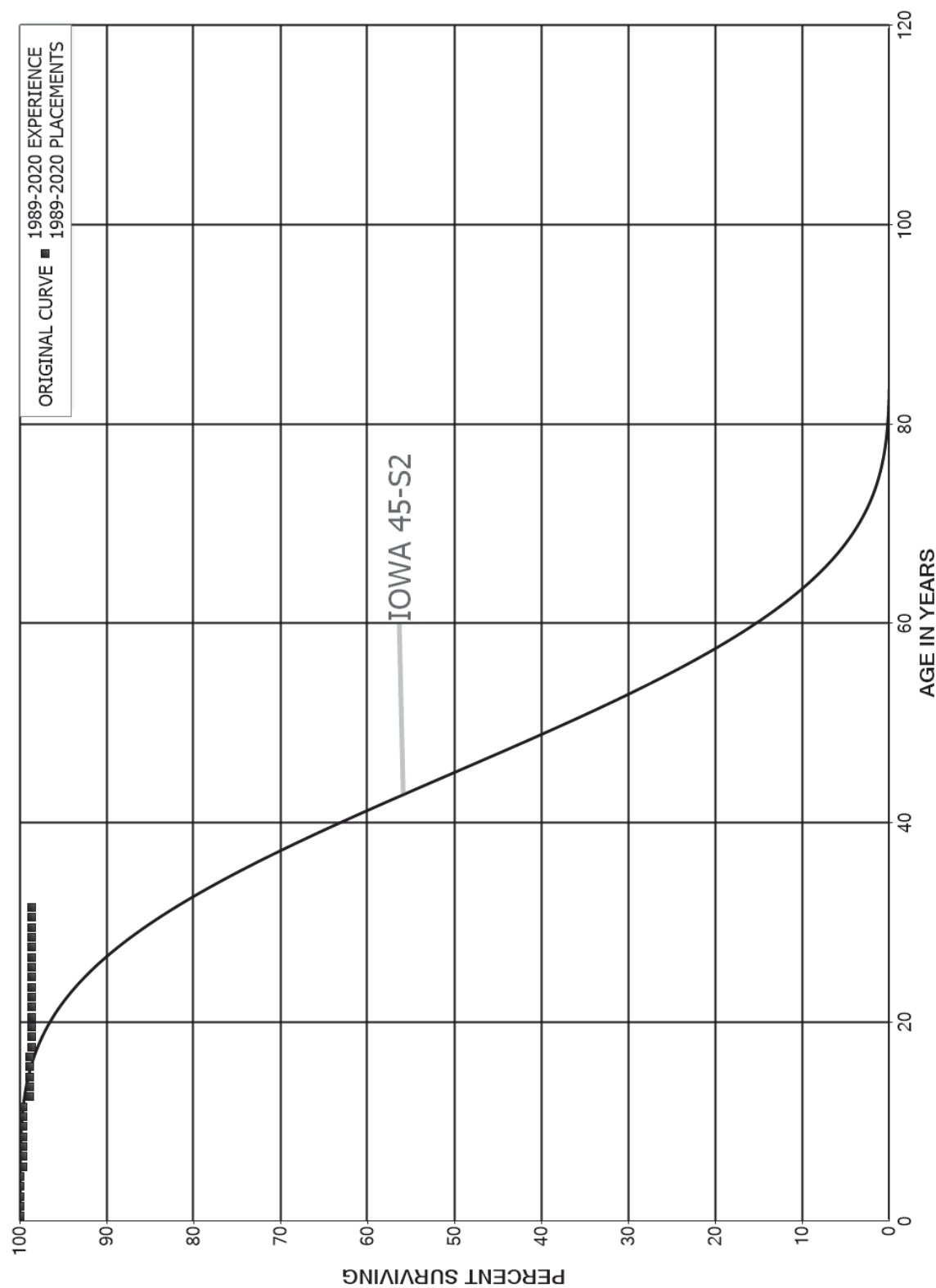
NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 354.10 THROUGH 354.60 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1988-2020			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	36,018,284		0.0000	1.0000	100.00
0.5	35,278,461		0.0000	1.0000	100.00
1.5	36,084,487	31,012	0.0009	0.9991	100.00
2.5	35,120,988		0.0000	1.0000	99.91
3.5	43,231,167		0.0000	1.0000	99.91
4.5	45,779,412		0.0000	1.0000	99.91
5.5	45,520,207		0.0000	1.0000	99.91
6.5	44,735,017	51,212	0.0011	0.9989	99.91
7.5	43,916,201		0.0000	1.0000	99.80
8.5	43,898,701		0.0000	1.0000	99.80
9.5	42,731,339	23,443	0.0005	0.9995	99.80
10.5	42,687,766		0.0000	1.0000	99.74
11.5	42,647,974		0.0000	1.0000	99.74
12.5	42,499,551		0.0000	1.0000	99.74
13.5	42,491,710		0.0000	1.0000	99.74
14.5	41,766,032		0.0000	1.0000	99.74
15.5	41,251,651		0.0000	1.0000	99.74
16.5	39,074,617		0.0000	1.0000	99.74
17.5	39,065,888		0.0000	1.0000	99.74
18.5	38,943,483		0.0000	1.0000	99.74
19.5	29,681,689		0.0000	1.0000	99.74
20.5	21,906,902		0.0000	1.0000	99.74
21.5	21,812,180	5,000,000	0.2292	0.7708	99.74
22.5	8,143,343		0.0000	1.0000	76.88
23.5	8,124,254		0.0000	1.0000	76.88
24.5	8,121,118		0.0000	1.0000	76.88
25.5	8,004,748		0.0000	1.0000	76.88
26.5	7,997,100		0.0000	1.0000	76.88
27.5	7,993,959		0.0000	1.0000	76.88
28.5	7,952,213		0.0000	1.0000	76.88
29.5	7,813,027		0.0000	1.0000	76.88
30.5	7,702,081		0.0000	1.0000	76.88
31.5					76.88

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 355.00 MEASURING AND REGULATING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



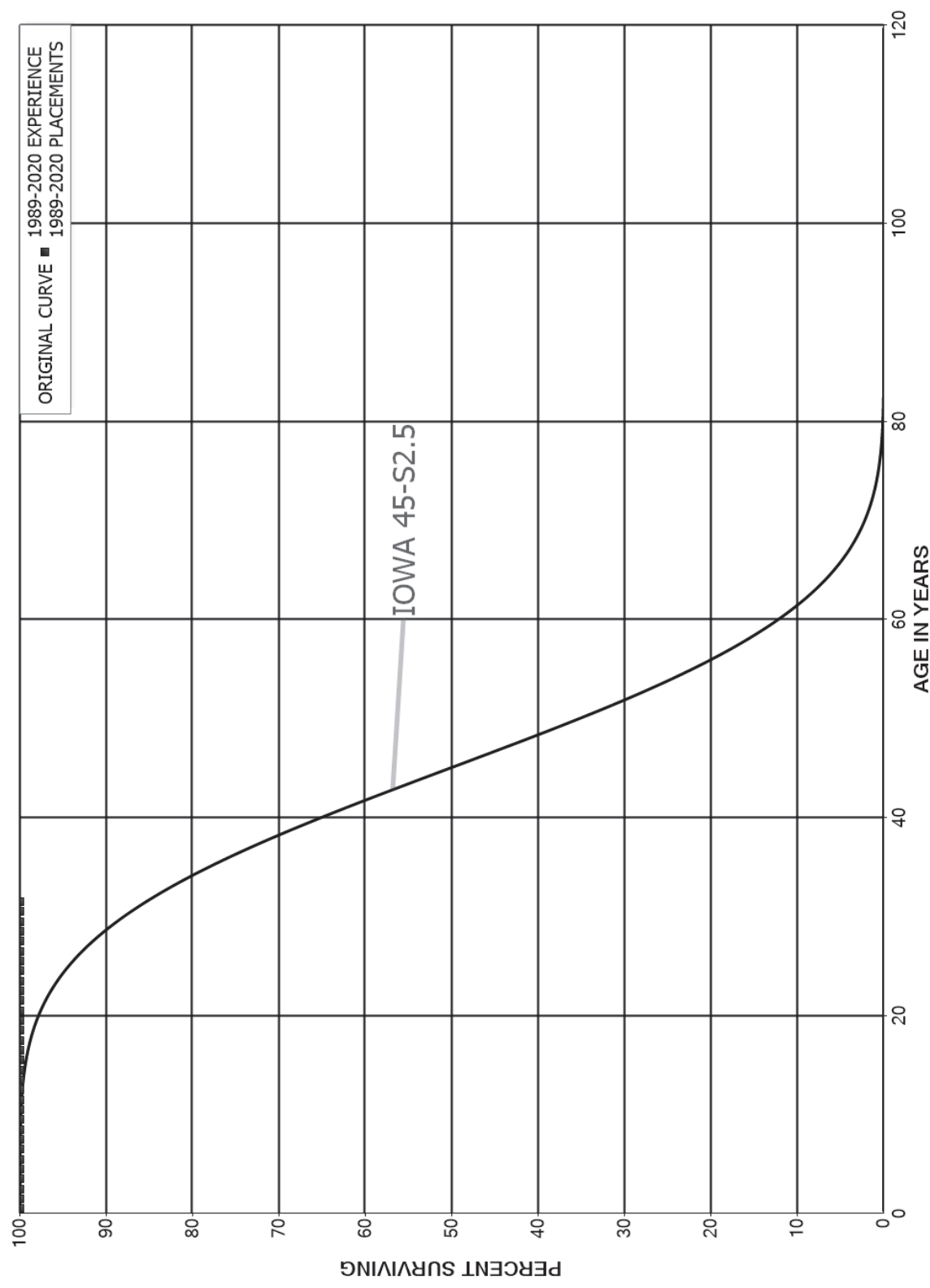
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 355.00 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2020			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	19,152,223		0.0000	1.0000	100.00
0.5	15,019,328		0.0000	1.0000	100.00
1.5	14,942,982		0.0000	1.0000	100.00
2.5	14,851,663		0.0000	1.0000	100.00
3.5	15,071,536		0.0000	1.0000	100.00
4.5	15,642,730	58,779	0.0038	0.9962	100.00
5.5	15,093,402		0.0000	1.0000	99.62
6.5	15,093,402		0.0000	1.0000	99.62
7.5	15,093,402		0.0000	1.0000	99.62
8.5	15,075,902		0.0000	1.0000	99.62
9.5	14,640,384		0.0000	1.0000	99.62
10.5	14,640,384		0.0000	1.0000	99.62
11.5	14,640,384	122,683	0.0084	0.9916	99.62
12.5	14,310,699		0.0000	1.0000	98.79
13.5	9,650,885		0.0000	1.0000	98.79
14.5	9,114,007		0.0000	1.0000	98.79
15.5	7,764,400		0.0000	1.0000	98.79
16.5	6,933,772	15,249	0.0022	0.9978	98.79
17.5	6,918,523		0.0000	1.0000	98.57
18.5	6,688,016		0.0000	1.0000	98.57
19.5	6,639,166		0.0000	1.0000	98.57
20.5	4,935,004		0.0000	1.0000	98.57
21.5	4,696,363		0.0000	1.0000	98.57
22.5	3,606,243		0.0000	1.0000	98.57
23.5	3,606,243		0.0000	1.0000	98.57
24.5	3,590,871		0.0000	1.0000	98.57
25.5	3,581,013		0.0000	1.0000	98.57
26.5	3,580,978		0.0000	1.0000	98.57
27.5	3,579,193		0.0000	1.0000	98.57
28.5	3,561,374		0.0000	1.0000	98.57
29.5	3,539,964		0.0000	1.0000	98.57
30.5	3,473,015		0.0000	1.0000	98.57
31.5					98.57

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 356.00 PURIFICATION EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



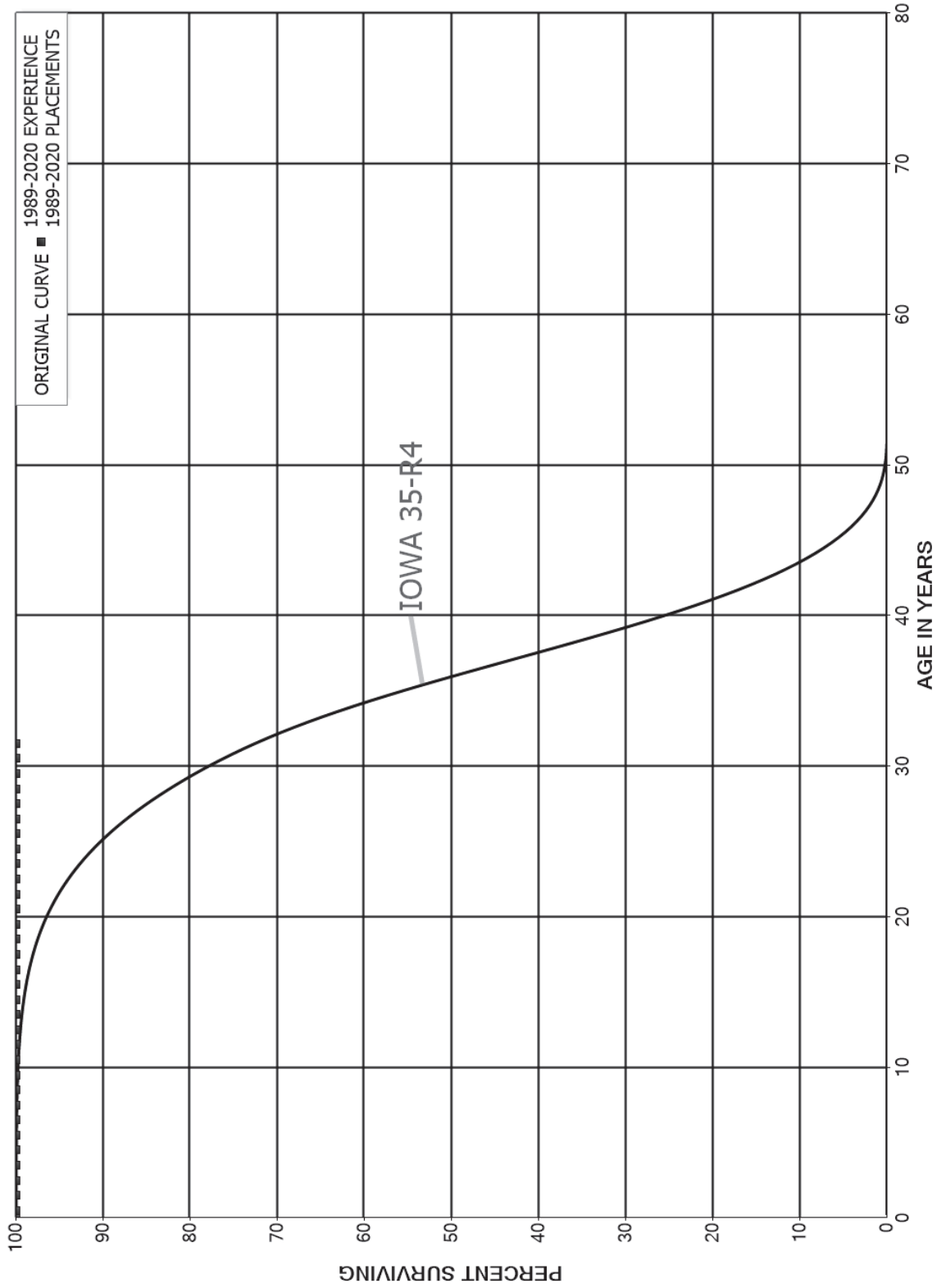
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 356.00 PURIFICATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2020			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	28,169,316		0.0000	1.0000	100.00
0.5	350,244		0.0000	1.0000	100.00
1.5	350,244		0.0000	1.0000	100.00
2.5	297,363		0.0000	1.0000	100.00
3.5	297,363		0.0000	1.0000	100.00
4.5	297,363		0.0000	1.0000	100.00
5.5	297,363		0.0000	1.0000	100.00
6.5	297,363		0.0000	1.0000	100.00
7.5	297,363		0.0000	1.0000	100.00
8.5	297,363		0.0000	1.0000	100.00
9.5	297,363		0.0000	1.0000	100.00
10.5	297,363		0.0000	1.0000	100.00
11.5	297,363		0.0000	1.0000	100.00
12.5	297,363		0.0000	1.0000	100.00
13.5	297,363		0.0000	1.0000	100.00
14.5	297,363		0.0000	1.0000	100.00
15.5	297,363		0.0000	1.0000	100.00
16.5	297,363		0.0000	1.0000	100.00
17.5	297,363		0.0000	1.0000	100.00
18.5	297,363		0.0000	1.0000	100.00
19.5	297,363		0.0000	1.0000	100.00
20.5	297,363		0.0000	1.0000	100.00
21.5	297,363		0.0000	1.0000	100.00
22.5	294,282		0.0000	1.0000	100.00
23.5	294,282		0.0000	1.0000	100.00
24.5	245,456		0.0000	1.0000	100.00
25.5	171,575		0.0000	1.0000	100.00
26.5	171,575		0.0000	1.0000	100.00
27.5	168,697		0.0000	1.0000	100.00
28.5	152,757		0.0000	1.0000	100.00
29.5	152,757		0.0000	1.0000	100.00
30.5	139,942		0.0000	1.0000	100.00
31.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 357.00 OTHER EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES

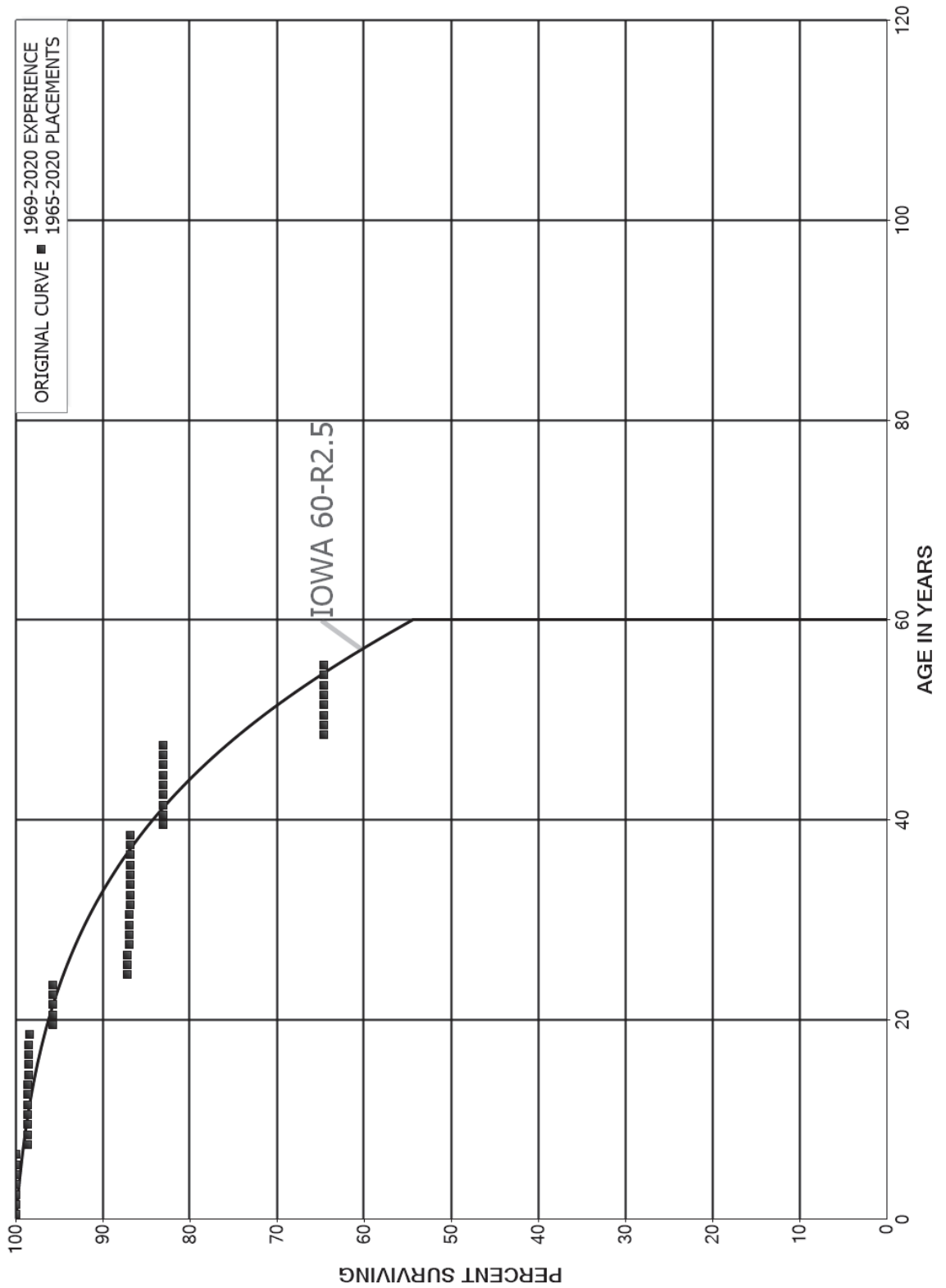


NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 357.00 OTHER EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2020			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	4,653,679		0.0000	1.0000	100.00
0.5	2,416,513		0.0000	1.0000	100.00
1.5	2,416,513		0.0000	1.0000	100.00
2.5	1,395,285		0.0000	1.0000	100.00
3.5	1,395,285		0.0000	1.0000	100.00
4.5	1,395,285		0.0000	1.0000	100.00
5.5	1,395,285		0.0000	1.0000	100.00
6.5	1,395,285		0.0000	1.0000	100.00
7.5	1,395,285		0.0000	1.0000	100.00
8.5	1,395,285		0.0000	1.0000	100.00
9.5	1,395,285		0.0000	1.0000	100.00
10.5	1,395,285		0.0000	1.0000	100.00
11.5	1,332,029		0.0000	1.0000	100.00
12.5	702,587		0.0000	1.0000	100.00
13.5	702,587		0.0000	1.0000	100.00
14.5	702,587		0.0000	1.0000	100.00
15.5	702,587		0.0000	1.0000	100.00
16.5	702,587		0.0000	1.0000	100.00
17.5	702,587		0.0000	1.0000	100.00
18.5	702,587		0.0000	1.0000	100.00
19.5	702,587		0.0000	1.0000	100.00
20.5	702,587		0.0000	1.0000	100.00
21.5	646,258		0.0000	1.0000	100.00
22.5	82,037		0.0000	1.0000	100.00
23.5	82,037		0.0000	1.0000	100.00
24.5	82,037		0.0000	1.0000	100.00
25.5	82,037		0.0000	1.0000	100.00
26.5	82,037		0.0000	1.0000	100.00
27.5	82,037		0.0000	1.0000	100.00
28.5	76,057		0.0000	1.0000	100.00
29.5	76,057		0.0000	1.0000	100.00
30.5	76,057		0.0000	1.0000	100.00
31.5					100.00

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1965-2020			EXPERIENCE BAND 1969-2020			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
0.0	23,822,553	44	0.0000	1.0000	100.00	
0.5	23,752,531		0.0000	1.0000	100.00	
1.5	23,293,883		0.0000	1.0000	100.00	
2.5	15,681,596		0.0000	1.0000	100.00	
3.5	12,807,808		0.0000	1.0000	100.00	
4.5	9,259,930	44	0.0000	1.0000	100.00	
5.5	9,222,991		0.0000	1.0000	100.00	
6.5	9,169,704	123,196	0.0134	0.9866	100.00	
7.5	9,046,507		0.0000	1.0000	98.66	
8.5	8,943,012	4,058	0.0005	0.9995	98.66	
9.5	8,657,169		0.0000	1.0000	98.61	
10.5	7,907,453		0.0000	1.0000	98.61	
11.5	6,556,594		0.0000	1.0000	98.61	
12.5	5,299,111		0.0000	1.0000	98.61	
13.5	4,866,919	6,596	0.0014	0.9986	98.61	
14.5	3,850,887		0.0000	1.0000	98.48	
15.5	3,655,248		0.0000	1.0000	98.48	
16.5	3,636,824		0.0000	1.0000	98.48	
17.5	3,636,824	1,150	0.0003	0.9997	98.48	
18.5	3,508,247	97,968	0.0279	0.9721	98.45	
19.5	3,330,837		0.0000	1.0000	95.70	
20.5	3,288,609		0.0000	1.0000	95.70	
21.5	3,103,423		0.0000	1.0000	95.70	
22.5	3,036,366		0.0000	1.0000	95.70	
23.5	2,844,219	253,844	0.0892	0.9108	95.70	
24.5	2,479,570		0.0000	1.0000	87.16	
25.5	2,396,160		0.0000	1.0000	87.16	
26.5	2,144,668	5,060	0.0024	0.9976	87.16	
27.5	2,070,881	478	0.0002	0.9998	86.95	
28.5	1,923,583		0.0000	1.0000	86.93	
29.5	1,836,529		0.0000	1.0000	86.93	
30.5	1,812,201	2,147	0.0012	0.9988	86.93	
31.5	1,726,536	568	0.0003	0.9997	86.83	
32.5	1,678,453		0.0000	1.0000	86.80	
33.5	1,669,579		0.0000	1.0000	86.80	
34.5	1,660,253		0.0000	1.0000	86.80	
35.5	1,640,098		0.0000	1.0000	86.80	
36.5	1,639,828		0.0000	1.0000	86.80	
37.5	1,639,828		0.0000	1.0000	86.80	
38.5	1,579,136	66,938	0.0424	0.9576	86.80	

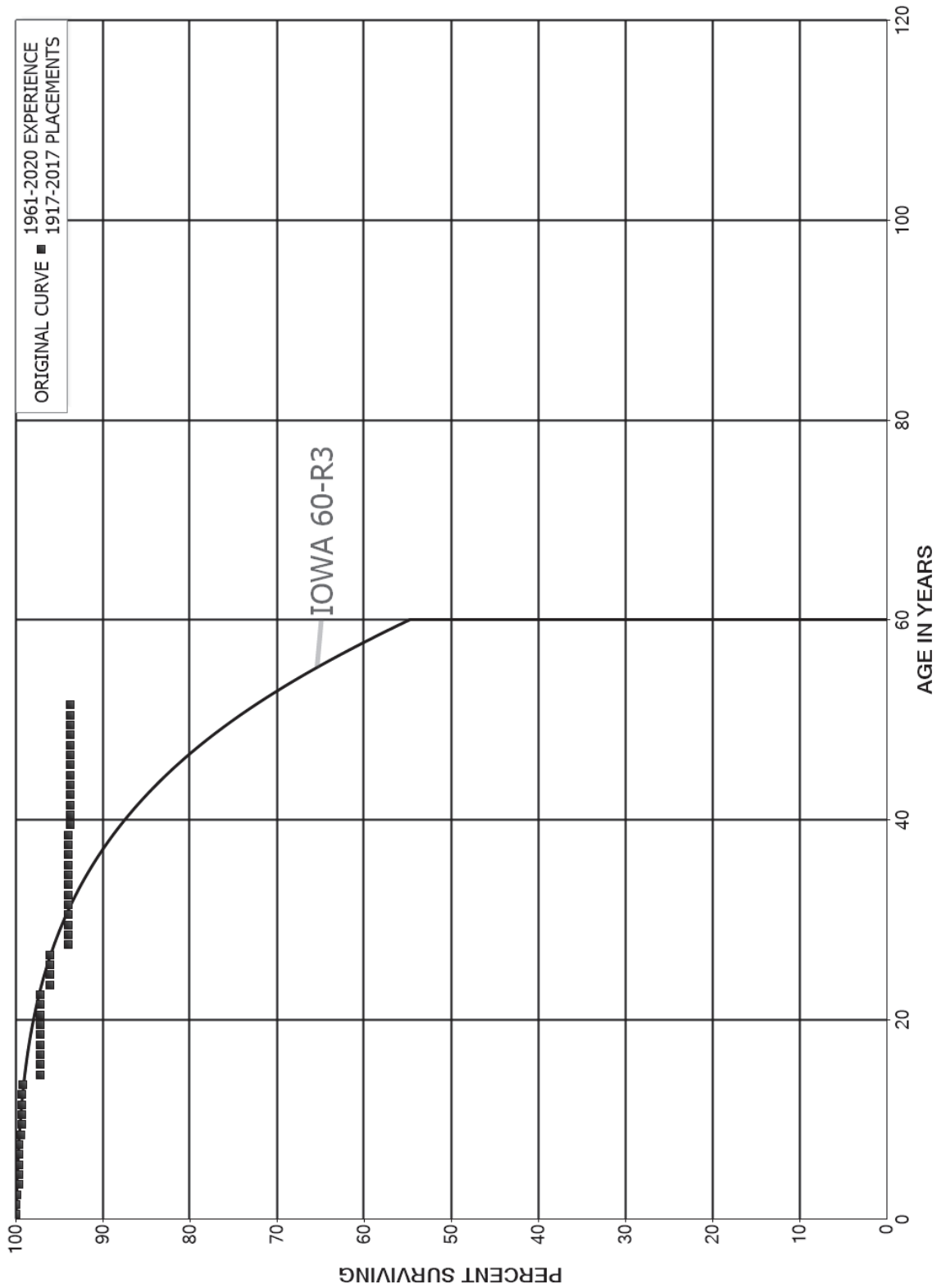
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1965-2020			EXPERIENCE BAND 1969-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,511,181		0.0000	1.0000	83.12
40.5	1,511,181		0.0000	1.0000	83.12
41.5	1,495,096		0.0000	1.0000	83.12
42.5	1,453,530		0.0000	1.0000	83.12
43.5	742,357		0.0000	1.0000	83.12
44.5	727,800		0.0000	1.0000	83.12
45.5	718,157		0.0000	1.0000	83.12
46.5	112,548		0.0000	1.0000	83.12
47.5	112,548	25,020	0.2223	0.7777	83.12
48.5	87,528		0.0000	1.0000	64.64
49.5	87,528		0.0000	1.0000	64.64
50.5	61,439		0.0000	1.0000	64.64
51.5	2,027		0.0000	1.0000	64.64
52.5	1,500		0.0000	1.0000	64.64
53.5	1,500		0.0000	1.0000	64.64
54.5	1,500		0.0000	1.0000	64.64
55.5					64.64

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 362.00 GAS HOLDERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 362.00 GAS HOLDERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1917-2017			EXPERIENCE BAND 1961-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	10,695,129		0.0000	1.0000	100.00
0.5	10,768,044	954	0.0001	0.9999	100.00
1.5	10,727,563	20,788	0.0019	0.9981	99.99
2.5	10,733,167	24,257	0.0023	0.9977	99.80
3.5	10,359,434		0.0000	1.0000	99.57
4.5	8,672,324		0.0000	1.0000	99.57
5.5	8,621,453		0.0000	1.0000	99.57
6.5	8,621,453		0.0000	1.0000	99.57
7.5	8,621,453	12,049	0.0014	0.9986	99.57
8.5	8,576,872	11,416	0.0013	0.9987	99.43
9.5	8,573,429	472	0.0001	0.9999	99.30
10.5	8,573,608		0.0000	1.0000	99.29
11.5	8,062,472		0.0000	1.0000	99.29
12.5	8,062,472	8,994	0.0011	0.9989	99.29
13.5	8,813,824	174,892	0.0198	0.9802	99.18
14.5	8,450,051		0.0000	1.0000	97.22
15.5	8,450,051	2,066	0.0002	0.9998	97.22
16.5	8,448,084		0.0000	1.0000	97.19
17.5	8,442,780		0.0000	1.0000	97.19
18.5	8,442,780		0.0000	1.0000	97.19
19.5	8,442,780		0.0000	1.0000	97.19
20.5	8,442,780		0.0000	1.0000	97.19
21.5	8,442,709		0.0000	1.0000	97.19
22.5	8,442,031	96,759	0.0115	0.9885	97.19
23.5	8,345,123		0.0000	1.0000	96.08
24.5	8,206,631	1,431	0.0002	0.9998	96.08
25.5	8,206,631		0.0000	1.0000	96.06
26.5	8,133,716	174,892	0.0215	0.9785	96.06
27.5	7,936,196		0.0000	1.0000	94.00
28.5	7,935,242		0.0000	1.0000	94.00
29.5	7,934,225		0.0000	1.0000	94.00
30.5	7,931,272	1,200	0.0002	0.9998	94.00
31.5	7,930,072		0.0000	1.0000	93.98
32.5	7,930,072		0.0000	1.0000	93.98
33.5	7,930,072		0.0000	1.0000	93.98
34.5	7,922,701		0.0000	1.0000	93.98
35.5	7,931,283		0.0000	1.0000	93.98
36.5	7,931,283		0.0000	1.0000	93.98
37.5	7,930,314		0.0000	1.0000	93.98
38.5	7,310,336	18,053	0.0025	0.9975	93.98

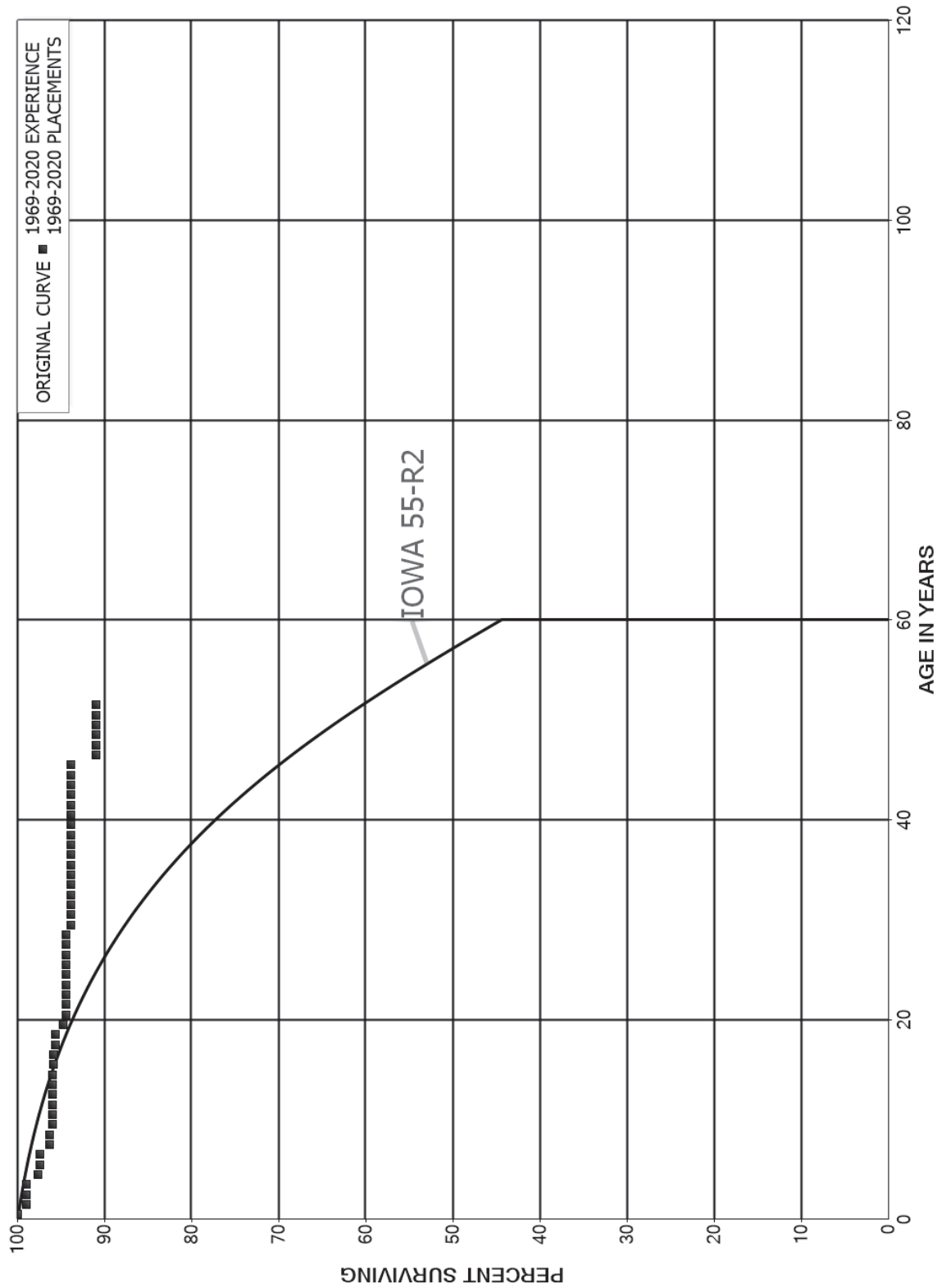
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 362.00 GAS HOLDERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1917-2017			EXPERIENCE BAND 1961-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	7,292,283		0.0000	1.0000	93.75
40.5	7,292,283		0.0000	1.0000	93.75
41.5	7,292,283		0.0000	1.0000	93.75
42.5	7,281,981		0.0000	1.0000	93.75
43.5	1,730,784		0.0000	1.0000	93.75
44.5	1,730,784		0.0000	1.0000	93.75
45.5	1,730,784		0.0000	1.0000	93.75
46.5	1,729,969		0.0000	1.0000	93.75
47.5	1,729,969	602	0.0003	0.9997	93.75
48.5	1,729,367		0.0000	1.0000	93.72
49.5	1,729,367		0.0000	1.0000	93.72
50.5	1,729,367		0.0000	1.0000	93.72
51.5	8,858		0.0000	1.0000	93.72
52.5	8,858		0.0000	1.0000	93.72
53.5	8,858		0.0000	1.0000	93.72
54.5	8,858		0.0000	1.0000	93.72
55.5	8,858		0.0000	1.0000	93.72
56.5	8,858		0.0000	1.0000	93.72
57.5	8,858		0.0000	1.0000	93.72
58.5	8,858		0.0000	1.0000	93.72
59.5	8,858		0.0000	1.0000	93.72
60.5	97		0.0000	1.0000	93.72
61.5	97		0.0000	1.0000	93.72
62.5	97		0.0000	1.0000	93.72
63.5	97		0.0000	1.0000	93.72
64.5	97		0.0000	1.0000	93.72
65.5	97		0.0000	1.0000	93.72
66.5	97		0.0000	1.0000	93.72
67.5	97		0.0000	1.0000	93.72
68.5					93.72

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 363.10 LIQUEFACTION EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.10 LIQUEFACTION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1969-2020

EXPERIENCE BAND 1969-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	19,756,287	18,698	0.0009	0.9991	100.00
0.5	19,681,073	199,635	0.0101	0.9899	99.91
1.5	19,834,549		0.0000	1.0000	98.89
2.5	14,716,099		0.0000	1.0000	98.89
3.5	11,042,035	146,338	0.0133	0.9867	98.89
4.5	10,492,909	18,698	0.0018	0.9982	97.58
5.5	10,418,811		0.0000	1.0000	97.41
6.5	10,061,961	114,090	0.0113	0.9887	97.41
7.5	9,947,870		0.0000	1.0000	96.30
8.5	9,874,887	34,692	0.0035	0.9965	96.30
9.5	9,685,872		0.0000	1.0000	95.96
10.5	9,685,872		0.0000	1.0000	95.96
11.5	9,615,459		0.0000	1.0000	95.96
12.5	9,553,081	434	0.0000	1.0000	95.96
13.5	9,508,844		0.0000	1.0000	95.96
14.5	9,352,990	13,425	0.0014	0.9986	95.96
15.5	9,291,232		0.0000	1.0000	95.82
16.5	8,996,185	18,523	0.0021	0.9979	95.82
17.5	8,845,996	3,226	0.0004	0.9996	95.63
18.5	8,767,623	74,502	0.0085	0.9915	95.59
19.5	8,227,848	34,032	0.0041	0.9959	94.78
20.5	8,111,837		0.0000	1.0000	94.39
21.5	7,783,304		0.0000	1.0000	94.39
22.5	7,234,849		0.0000	1.0000	94.39
23.5	6,950,150		0.0000	1.0000	94.39
24.5	6,757,315		0.0000	1.0000	94.39
25.5	6,755,104		0.0000	1.0000	94.39
26.5	6,738,396	399	0.0001	0.9999	94.39
27.5	6,721,801		0.0000	1.0000	94.38
28.5	6,640,272	35,128	0.0053	0.9947	94.38
29.5	6,501,938		0.0000	1.0000	93.88
30.5	6,412,166		0.0000	1.0000	93.88
31.5	6,390,407		0.0000	1.0000	93.88
32.5	6,390,407		0.0000	1.0000	93.88
33.5	6,313,086		0.0000	1.0000	93.88
34.5	6,298,223		0.0000	1.0000	93.88
35.5	6,286,698		0.0000	1.0000	93.88
36.5	6,264,779		0.0000	1.0000	93.88
37.5	6,264,779		0.0000	1.0000	93.88
38.5	6,264,779		0.0000	1.0000	93.88

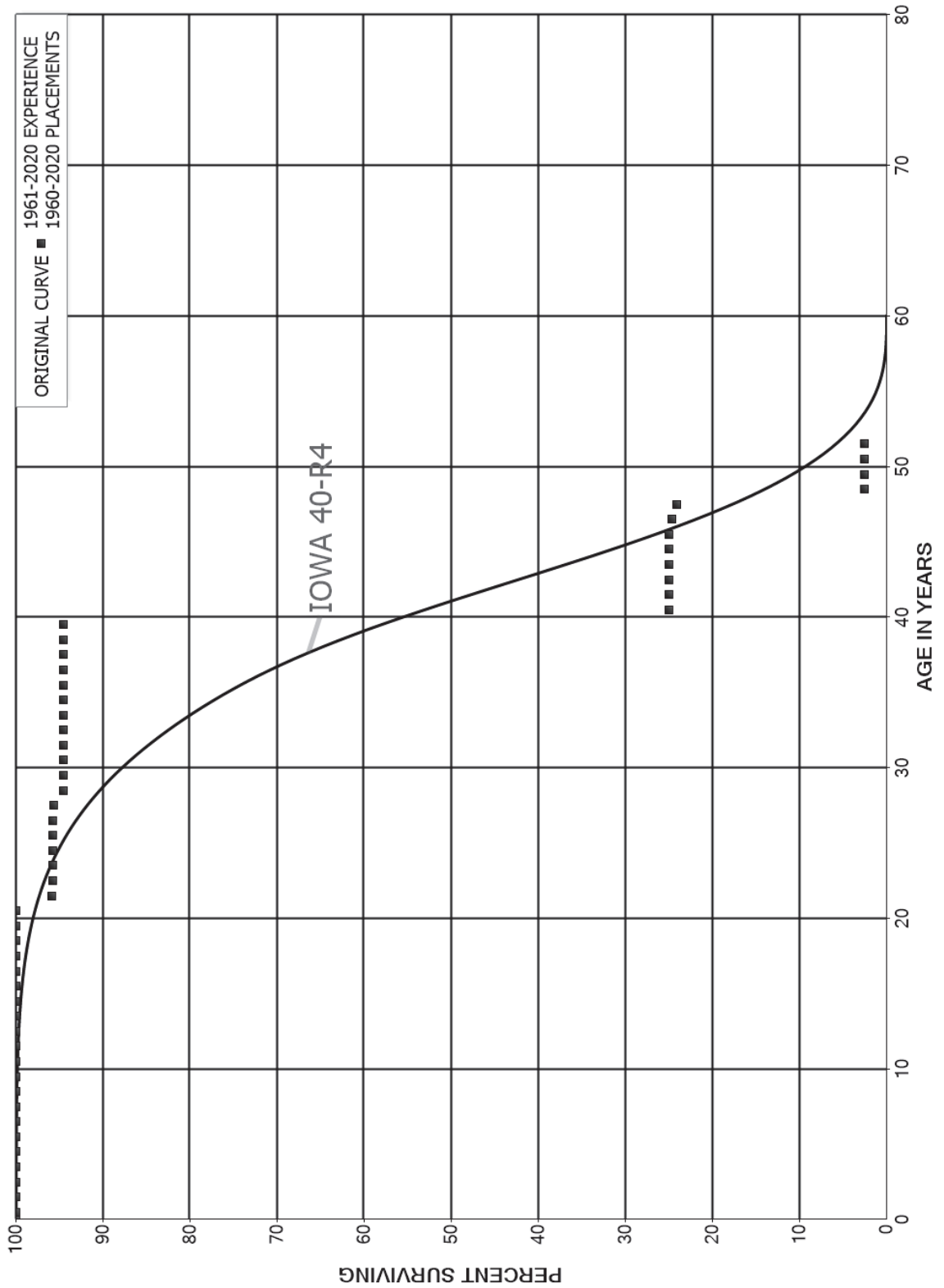
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.10 LIQUEFACTION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1969-2020			EXPERIENCE BAND 1969-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	6,264,779		0.0000	1.0000	93.88
40.5	6,164,100		0.0000	1.0000	93.88
41.5	6,158,562		0.0000	1.0000	93.88
42.5	6,142,214		0.0000	1.0000	93.88
43.5	905,417		0.0000	1.0000	93.88
44.5	879,462		0.0000	1.0000	93.88
45.5	879,194	27,318	0.0311	0.9689	93.88
46.5	849,919		0.0000	1.0000	90.96
47.5	849,919		0.0000	1.0000	90.96
48.5	845,658		0.0000	1.0000	90.96
49.5	844,045		0.0000	1.0000	90.96
50.5	828,857		0.0000	1.0000	90.96
51.5					90.96

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 363.20 VAPORIZING EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.20 VAPORIZING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2020			EXPERIENCE BAND 1961-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,820,840		0.0000	1.0000	100.00
0.5	10,853,004	602	0.0001	0.9999	100.00
1.5	11,055,638		0.0000	1.0000	99.99
2.5	11,055,638	1,415	0.0001	0.9999	99.99
3.5	6,584,958		0.0000	1.0000	99.98
4.5	6,584,958		0.0000	1.0000	99.98
5.5	6,436,057		0.0000	1.0000	99.98
6.5	6,436,057	1,983	0.0003	0.9997	99.98
7.5	6,436,057		0.0000	1.0000	99.95
8.5	6,436,057	2,322	0.0004	0.9996	99.95
9.5	5,320,819		0.0000	1.0000	99.91
10.5	5,320,819		0.0000	1.0000	99.91
11.5	5,320,819		0.0000	1.0000	99.91
12.5	5,320,819		0.0000	1.0000	99.91
13.5	5,320,819		0.0000	1.0000	99.91
14.5	4,999,612		0.0000	1.0000	99.91
15.5	4,999,612		0.0000	1.0000	99.91
16.5	4,931,166		0.0000	1.0000	99.91
17.5	4,931,166		0.0000	1.0000	99.91
18.5	4,930,986		0.0000	1.0000	99.91
19.5	4,930,986		0.0000	1.0000	99.91
20.5	4,930,986	200,000	0.0406	0.9594	99.91
21.5	4,730,986	8,350	0.0018	0.9982	95.86
22.5	4,722,636		0.0000	1.0000	95.69
23.5	4,722,636	455	0.0001	0.9999	95.69
24.5	4,722,181	436	0.0001	0.9999	95.68
25.5	4,710,564		0.0000	1.0000	95.68
26.5	4,677,803	303	0.0001	0.9999	95.68
27.5	4,677,499	59,483	0.0127	0.9873	95.67
28.5	4,615,790		0.0000	1.0000	94.45
29.5	4,429,354		0.0000	1.0000	94.45
30.5	3,273,347		0.0000	1.0000	94.45
31.5	3,273,347		0.0000	1.0000	94.45
32.5	3,273,347		0.0000	1.0000	94.45
33.5	3,095,885		0.0000	1.0000	94.45
34.5	3,083,807		0.0000	1.0000	94.45
35.5	3,083,807		0.0000	1.0000	94.45
36.5	3,083,807		0.0000	1.0000	94.45
37.5	3,083,807		0.0000	1.0000	94.45
38.5	3,083,807		0.0000	1.0000	94.45

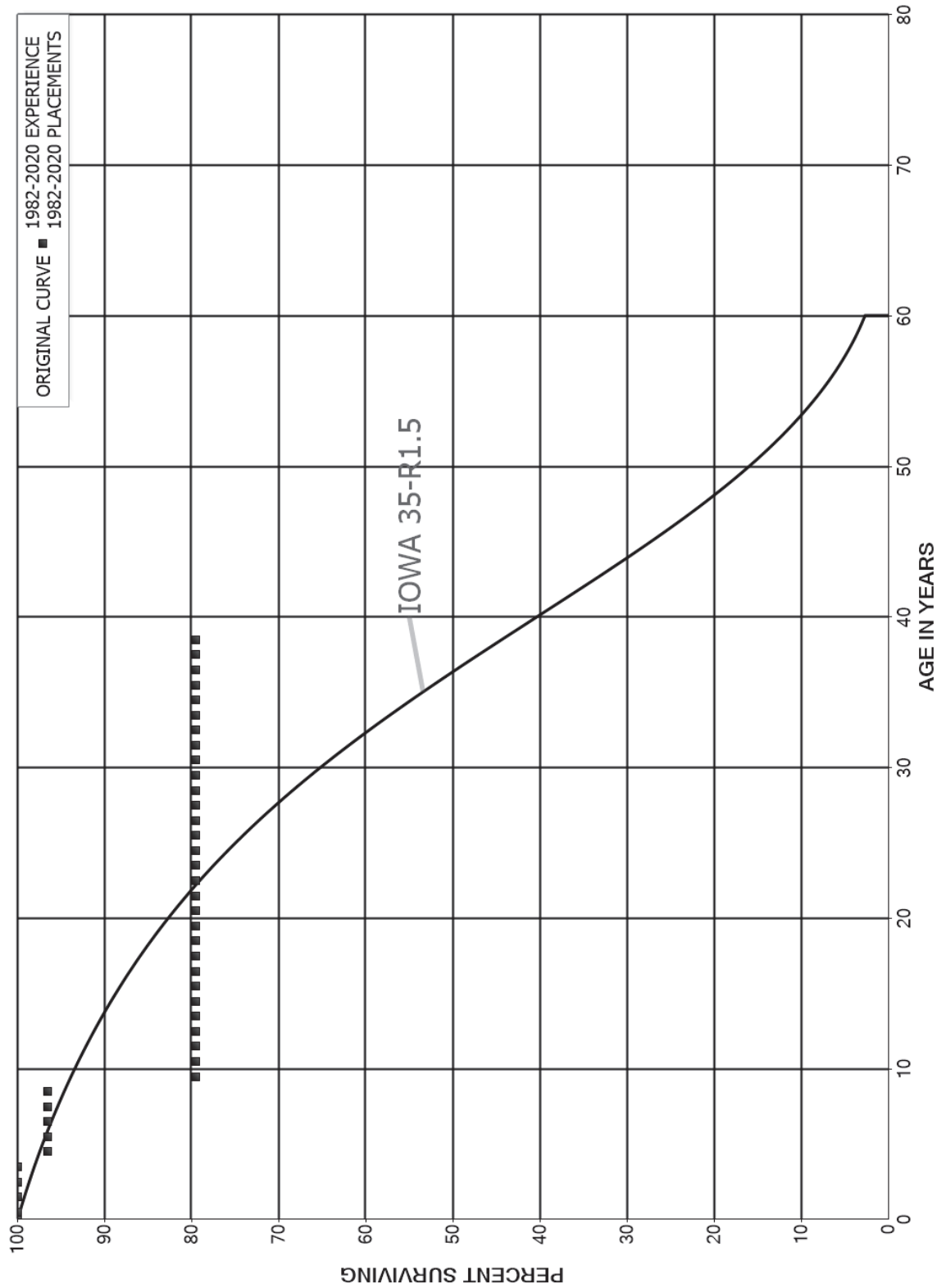
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.20 VAPORIZING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2020			EXPERIENCE BAND 1961-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	3,083,807	2,269,514	0.7359	0.2641	94.45
40.5	814,293		0.0000	1.0000	24.94
41.5	814,293		0.0000	1.0000	24.94
42.5	814,293		0.0000	1.0000	24.94
43.5	753,468		0.0000	1.0000	24.94
44.5	366,804		0.0000	1.0000	24.94
45.5	366,535	4,062	0.0111	0.9889	24.94
46.5	360,214	9,122	0.0253	0.9747	24.66
47.5	337,841	303,259	0.8976	0.1024	24.04
48.5	32,214		0.0000	1.0000	2.46
49.5	18,960		0.0000	1.0000	2.46
50.5	18,960		0.0000	1.0000	2.46
51.5					2.46

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 363.30 COMPRESSOR EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



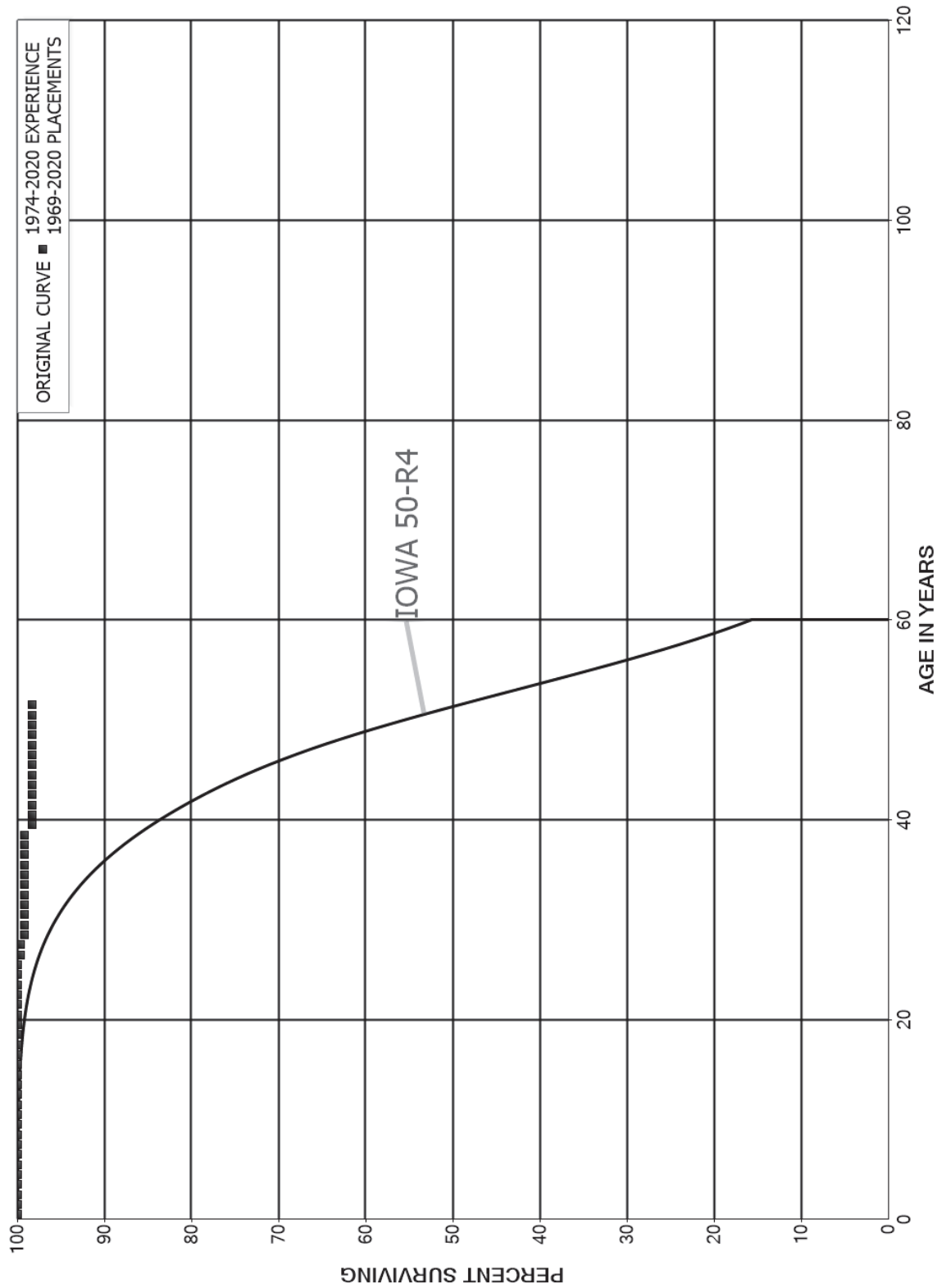
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.30 COMPRESSOR EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1982-2020			EXPERIENCE BAND 1982-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,142,516		0.0000	1.0000	100.00
0.5	5,021,333		0.0000	1.0000	100.00
1.5	5,040,754		0.0000	1.0000	100.00
2.5	4,784,157	273	0.0001	0.9999	100.00
3.5	4,286,078	151,425	0.0353	0.9647	99.99
4.5	1,867,683		0.0000	1.0000	96.46
5.5	1,867,683		0.0000	1.0000	96.46
6.5	481,854		0.0000	1.0000	96.46
7.5	481,854		0.0000	1.0000	96.46
8.5	481,854	84,841	0.1761	0.8239	96.46
9.5	397,013		0.0000	1.0000	79.48
10.5	397,013		0.0000	1.0000	79.48
11.5	397,013		0.0000	1.0000	79.48
12.5	343,850		0.0000	1.0000	79.48
13.5	343,850		0.0000	1.0000	79.48
14.5	343,850		0.0000	1.0000	79.48
15.5	327,070		0.0000	1.0000	79.48
16.5	327,070		0.0000	1.0000	79.48
17.5	148,568		0.0000	1.0000	79.48
18.5	148,568		0.0000	1.0000	79.48
19.5	148,568		0.0000	1.0000	79.48
20.5	148,568		0.0000	1.0000	79.48
21.5	148,568		0.0000	1.0000	79.48
22.5	148,568		0.0000	1.0000	79.48
23.5	127,741		0.0000	1.0000	79.48
24.5	108,320		0.0000	1.0000	79.48
25.5	108,320		0.0000	1.0000	79.48
26.5	108,320		0.0000	1.0000	79.48
27.5	108,320		0.0000	1.0000	79.48
28.5	108,320		0.0000	1.0000	79.48
29.5	108,320		0.0000	1.0000	79.48
30.5	108,320		0.0000	1.0000	79.48
31.5	108,320		0.0000	1.0000	79.48
32.5	108,320		0.0000	1.0000	79.48
33.5	108,320		0.0000	1.0000	79.48
34.5	86,804		0.0000	1.0000	79.48
35.5	86,804		0.0000	1.0000	79.48
36.5	86,804		0.0000	1.0000	79.48
37.5	85,687		0.0000	1.0000	79.48
38.5					79.48

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 363.40 MEASURING AND REGULATING EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.40 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1969-2020

EXPERIENCE BAND 1974-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	13,286,310		0.0000	1.0000	100.00
0.5	12,818,726		0.0000	1.0000	100.00
1.5	12,701,876		0.0000	1.0000	100.00
2.5	12,282,411		0.0000	1.0000	100.00
3.5	900,497		0.0000	1.0000	100.00
4.5	1,362,034		0.0000	1.0000	100.00
5.5	1,362,034		0.0000	1.0000	100.00
6.5	1,002,125		0.0000	1.0000	100.00
7.5	850,563		0.0000	1.0000	100.00
8.5	850,563		0.0000	1.0000	100.00
9.5	850,563		0.0000	1.0000	100.00
10.5	850,563		0.0000	1.0000	100.00
11.5	682,272		0.0000	1.0000	100.00
12.5	682,272		0.0000	1.0000	100.00
13.5	682,272		0.0000	1.0000	100.00
14.5	653,998		0.0000	1.0000	100.00
15.5	653,998		0.0000	1.0000	100.00
16.5	653,998		0.0000	1.0000	100.00
17.5	653,998		0.0000	1.0000	100.00
18.5	636,675		0.0000	1.0000	100.00
19.5	636,675		0.0000	1.0000	100.00
20.5	636,675		0.0000	1.0000	100.00
21.5	636,675		0.0000	1.0000	100.00
22.5	636,675		0.0000	1.0000	100.00
23.5	636,675		0.0000	1.0000	100.00
24.5	636,675		0.0000	1.0000	100.00
25.5	636,675	2,647	0.0042	0.9958	100.00
26.5	634,028		0.0000	1.0000	99.58
27.5	634,028	2,566	0.0040	0.9960	99.58
28.5	628,091		0.0000	1.0000	99.18
29.5	607,580		0.0000	1.0000	99.18
30.5	560,097		0.0000	1.0000	99.18
31.5	555,322		0.0000	1.0000	99.18
32.5	545,620		0.0000	1.0000	99.18
33.5	545,620		0.0000	1.0000	99.18
34.5	545,620		0.0000	1.0000	99.18
35.5	541,958		0.0000	1.0000	99.18
36.5	541,958		0.0000	1.0000	99.18
37.5	541,958		0.0000	1.0000	99.18
38.5	541,958	4,721	0.0087	0.9913	99.18

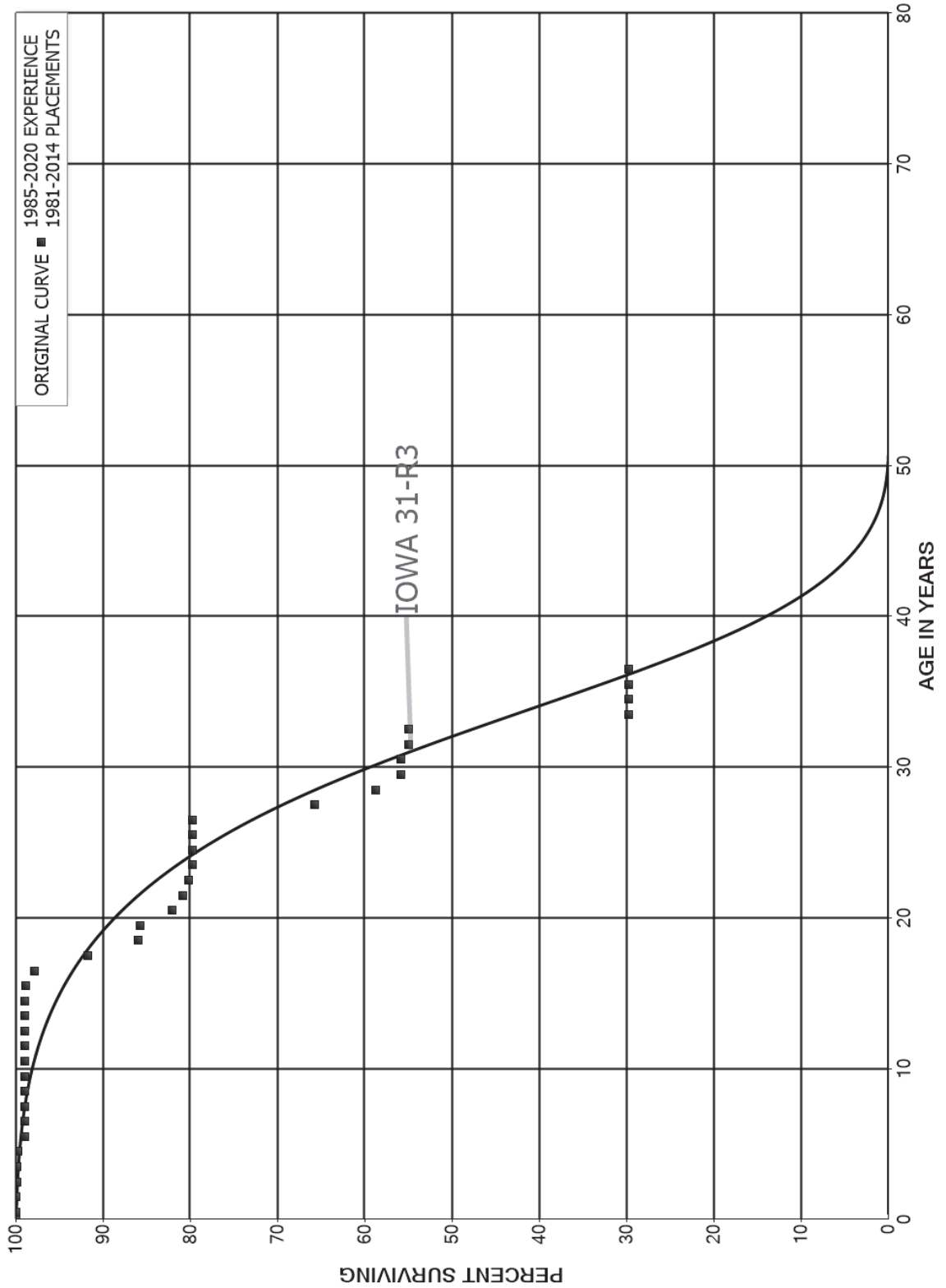
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.40 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1969-2020			EXPERIENCE BAND 1974-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	537,237		0.0000	1.0000	98.32
40.5	537,237		0.0000	1.0000	98.32
41.5	537,237		0.0000	1.0000	98.32
42.5	537,237		0.0000	1.0000	98.32
43.5	482,034		0.0000	1.0000	98.32
44.5	482,034		0.0000	1.0000	98.32
45.5	481,660		0.0000	1.0000	98.32
46.5	480,333		0.0000	1.0000	98.32
47.5	480,333		0.0000	1.0000	98.32
48.5	474,008		0.0000	1.0000	98.32
49.5	464,177		0.0000	1.0000	98.32
50.5	461,537		0.0000	1.0000	98.32
51.5					98.32

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 363.50 CNG REFUELING FACILITIES
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.50 CNG REFUELING FACILITIES

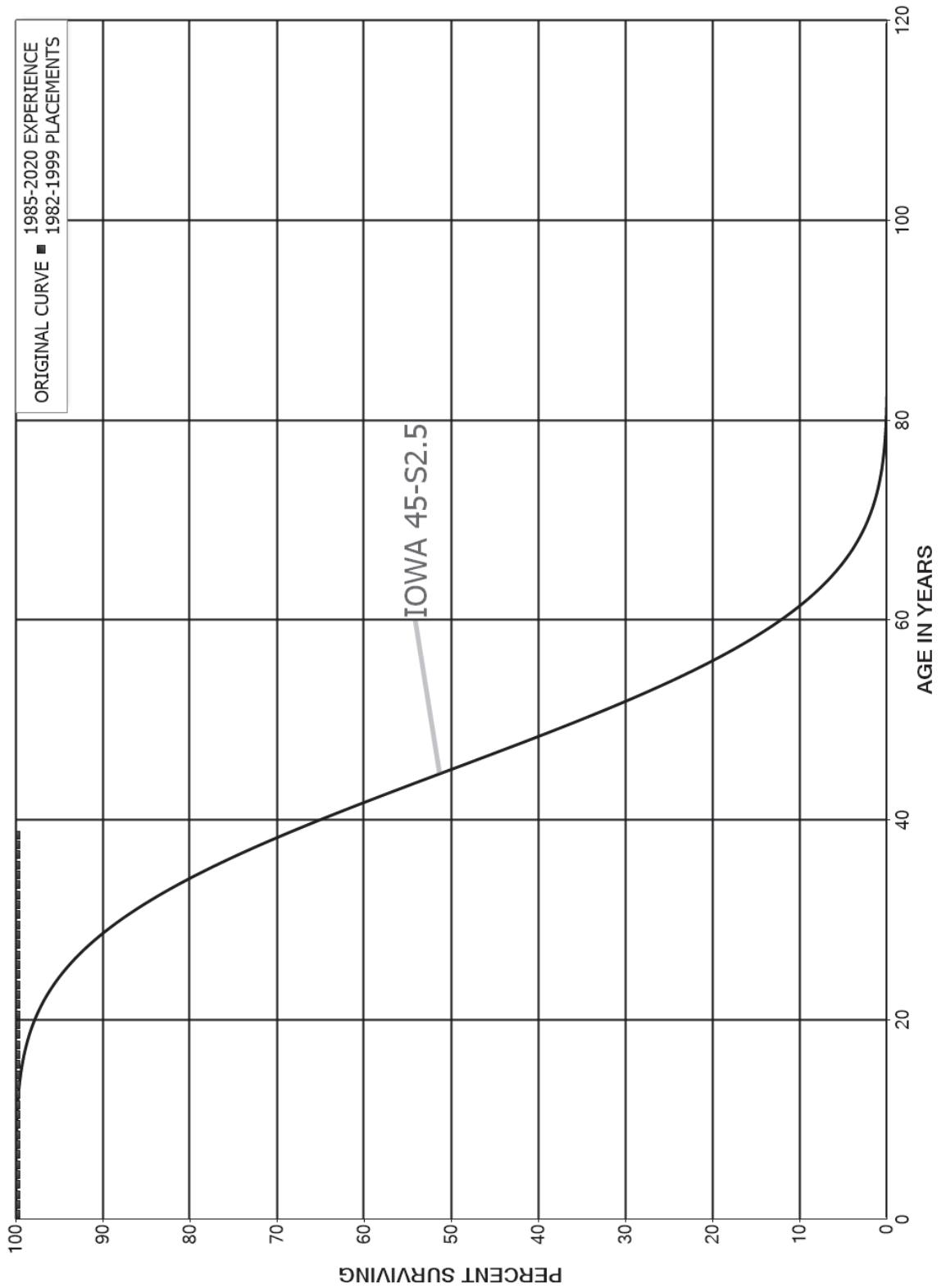
ORIGINAL LIFE TABLE

PLACEMENT BAND 1981-2014

EXPERIENCE BAND 1985-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,397,353		0.0000	1.0000	100.00
0.5	3,397,353	3,726	0.0011	0.9989	100.00
1.5	3,504,352	13	0.0000	1.0000	99.89
2.5	3,509,603	1,280	0.0004	0.9996	99.89
3.5	3,517,228	3,071	0.0009	0.9991	99.85
4.5	3,629,180	27,968	0.0077	0.9923	99.77
5.5	3,601,212		0.0000	1.0000	99.00
6.5	2,068,805		0.0000	1.0000	99.00
7.5	1,945,791		0.0000	1.0000	99.00
8.5	1,828,161		0.0000	1.0000	99.00
9.5	1,828,161		0.0000	1.0000	99.00
10.5	1,828,161		0.0000	1.0000	99.00
11.5	1,828,161		0.0000	1.0000	99.00
12.5	1,828,161		0.0000	1.0000	99.00
13.5	1,828,161	1,938	0.0011	0.9989	99.00
14.5	1,826,223	1,632	0.0009	0.9991	98.89
15.5	1,824,591	18,126	0.0099	0.9901	98.80
16.5	1,756,791	108,566	0.0618	0.9382	97.82
17.5	1,648,225	103,851	0.0630	0.9370	91.78
18.5	1,543,074	4,067	0.0026	0.9974	85.99
19.5	1,539,007	66,855	0.0434	0.9566	85.77
20.5	1,472,152	22,396	0.0152	0.9848	82.04
21.5	1,445,472	10,299	0.0071	0.9929	80.79
22.5	1,406,338	8,819	0.0063	0.9937	80.22
23.5	1,349,534		0.0000	1.0000	79.72
24.5	1,121,383		0.0000	1.0000	79.72
25.5	828,024		0.0000	1.0000	79.72
26.5	479,640	84,323	0.1758	0.8242	79.72
27.5	334,107	35,635	0.1067	0.8933	65.70
28.5	278,765	13,528	0.0485	0.9515	58.69
29.5	213,030	25	0.0001	0.9999	55.85
30.5	149,526	2,421	0.0162	0.9838	55.84
31.5	147,105		0.0000	1.0000	54.93
32.5	147,105	67,435	0.4584	0.5416	54.93
33.5	79,670		0.0000	1.0000	29.75
34.5	72,652		0.0000	1.0000	29.75
35.5	71,186		0.0000	1.0000	29.75
36.5	30,743		0.0000	1.0000	29.75
37.5	29,180		0.0000	1.0000	29.75
38.5	19,620		0.0000	1.0000	29.75
39.5					29.75

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 363.60 LNG REFUELING FACILITIES
ORIGINAL AND SMOOTH SURVIVOR CURVES



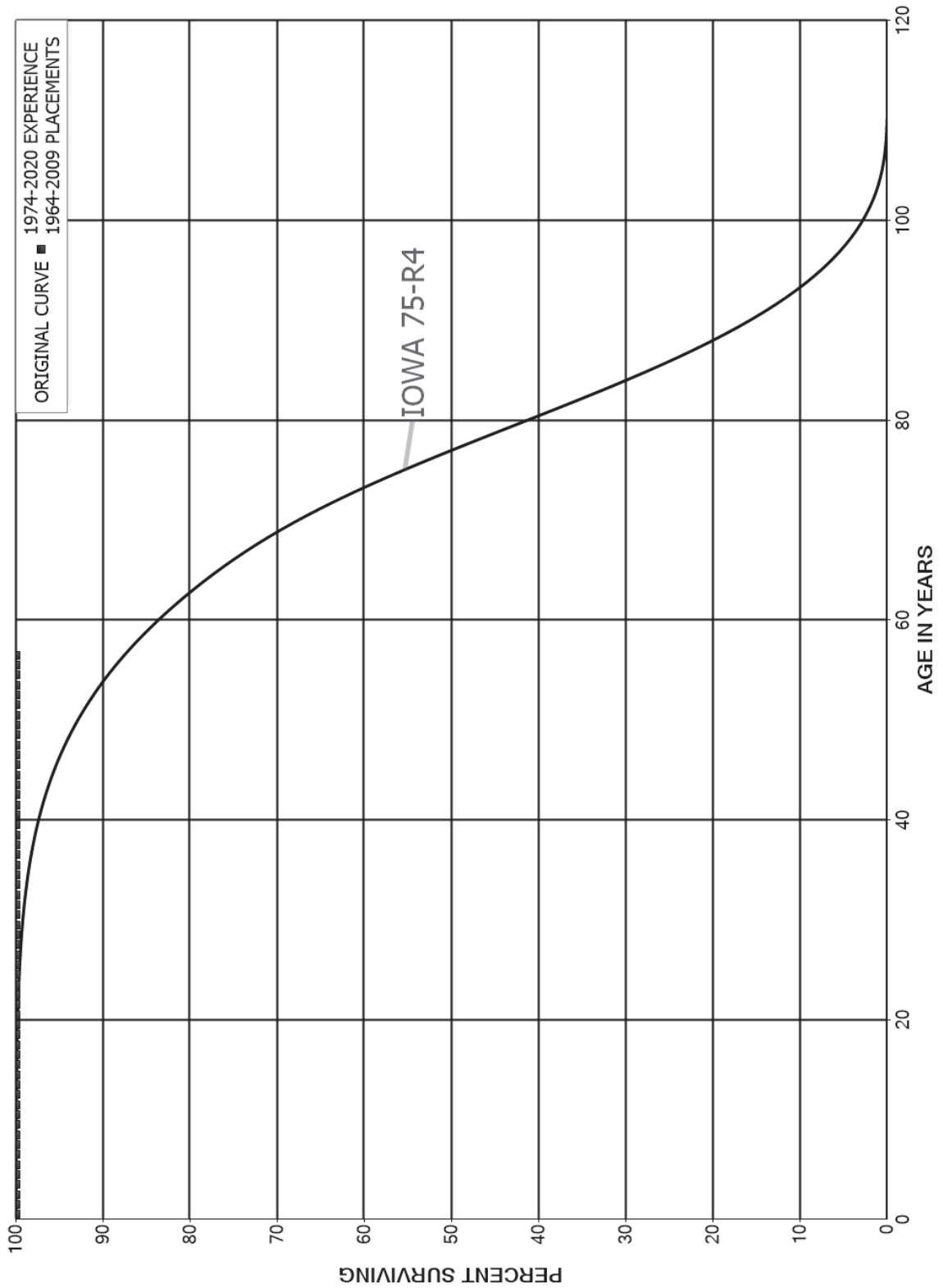
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.60 LNG REFUELING FACILITIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1982-1999			EXPERIENCE BAND 1985-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	281,163		0.0000	1.0000	100.00
0.5	281,163		0.0000	1.0000	100.00
1.5	328,416		0.0000	1.0000	100.00
2.5	390,036		0.0000	1.0000	100.00
3.5	739,473		0.0000	1.0000	100.00
4.5	739,473		0.0000	1.0000	100.00
5.5	739,473		0.0000	1.0000	100.00
6.5	739,473		0.0000	1.0000	100.00
7.5	739,473		0.0000	1.0000	100.00
8.5	739,473		0.0000	1.0000	100.00
9.5	739,473		0.0000	1.0000	100.00
10.5	739,473		0.0000	1.0000	100.00
11.5	739,473		0.0000	1.0000	100.00
12.5	739,473		0.0000	1.0000	100.00
13.5	739,473		0.0000	1.0000	100.00
14.5	739,473		0.0000	1.0000	100.00
15.5	739,473		0.0000	1.0000	100.00
16.5	739,473		0.0000	1.0000	100.00
17.5	739,473		0.0000	1.0000	100.00
18.5	739,473		0.0000	1.0000	100.00
19.5	739,473		0.0000	1.0000	100.00
20.5	739,473		0.0000	1.0000	100.00
21.5	730,990		0.0000	1.0000	100.00
22.5	730,990		0.0000	1.0000	100.00
23.5	725,680		0.0000	1.0000	100.00
24.5	712,293		0.0000	1.0000	100.00
25.5	666,615		0.0000	1.0000	100.00
26.5	628,397		0.0000	1.0000	100.00
27.5	573,929		0.0000	1.0000	100.00
28.5	460,040		0.0000	1.0000	100.00
29.5	459,105		0.0000	1.0000	100.00
30.5	459,105		0.0000	1.0000	100.00
31.5	459,105		0.0000	1.0000	100.00
32.5	459,105		0.0000	1.0000	100.00
33.5	459,105		0.0000	1.0000	100.00
34.5	458,997		0.0000	1.0000	100.00
35.5	453,824		0.0000	1.0000	100.00
36.5	411,057		0.0000	1.0000	100.00
37.5	349,437		0.0000	1.0000	100.00
38.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 365.20 LAND RIGHTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 365.20 LAND RIGHTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1964-2009			EXPERIENCE BAND 1974-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	5,770,969		0.0000	1.0000	100.00
0.5	5,375,541		0.0000	1.0000	100.00
1.5	5,279,074		0.0000	1.0000	100.00
2.5	5,310,109		0.0000	1.0000	100.00
3.5	5,310,109		0.0000	1.0000	100.00
4.5	5,310,109		0.0000	1.0000	100.00
5.5	5,286,730		0.0000	1.0000	100.00
6.5	5,446,043		0.0000	1.0000	100.00
7.5	5,579,754		0.0000	1.0000	100.00
8.5	6,153,400		0.0000	1.0000	100.00
9.5	6,361,083		0.0000	1.0000	100.00
10.5	6,455,177		0.0000	1.0000	100.00
11.5	6,270,968		0.0000	1.0000	100.00
12.5	6,270,968		0.0000	1.0000	100.00
13.5	6,270,968		0.0000	1.0000	100.00
14.5	6,270,968		0.0000	1.0000	100.00
15.5	6,270,968		0.0000	1.0000	100.00
16.5	4,195,148		0.0000	1.0000	100.00
17.5	3,013,374		0.0000	1.0000	100.00
18.5	2,617,946		0.0000	1.0000	100.00
19.5	2,617,946		0.0000	1.0000	100.00
20.5	2,617,946		0.0000	1.0000	100.00
21.5	2,617,946		0.0000	1.0000	100.00
22.5	2,617,946		0.0000	1.0000	100.00
23.5	2,617,946		0.0000	1.0000	100.00
24.5	2,617,946		0.0000	1.0000	100.00
25.5	2,617,946		0.0000	1.0000	100.00
26.5	2,617,946		0.0000	1.0000	100.00
27.5	2,617,946		0.0000	1.0000	100.00
28.5	2,604,197		0.0000	1.0000	100.00
29.5	2,461,137		0.0000	1.0000	100.00
30.5	2,060,125		0.0000	1.0000	100.00
31.5	1,244,309		0.0000	1.0000	100.00
32.5	1,244,309		0.0000	1.0000	100.00
33.5	1,244,309		0.0000	1.0000	100.00
34.5	1,244,309		0.0000	1.0000	100.00
35.5	1,244,309		0.0000	1.0000	100.00
36.5	1,244,309		0.0000	1.0000	100.00
37.5	1,244,309		0.0000	1.0000	100.00
38.5	1,244,309		0.0000	1.0000	100.00

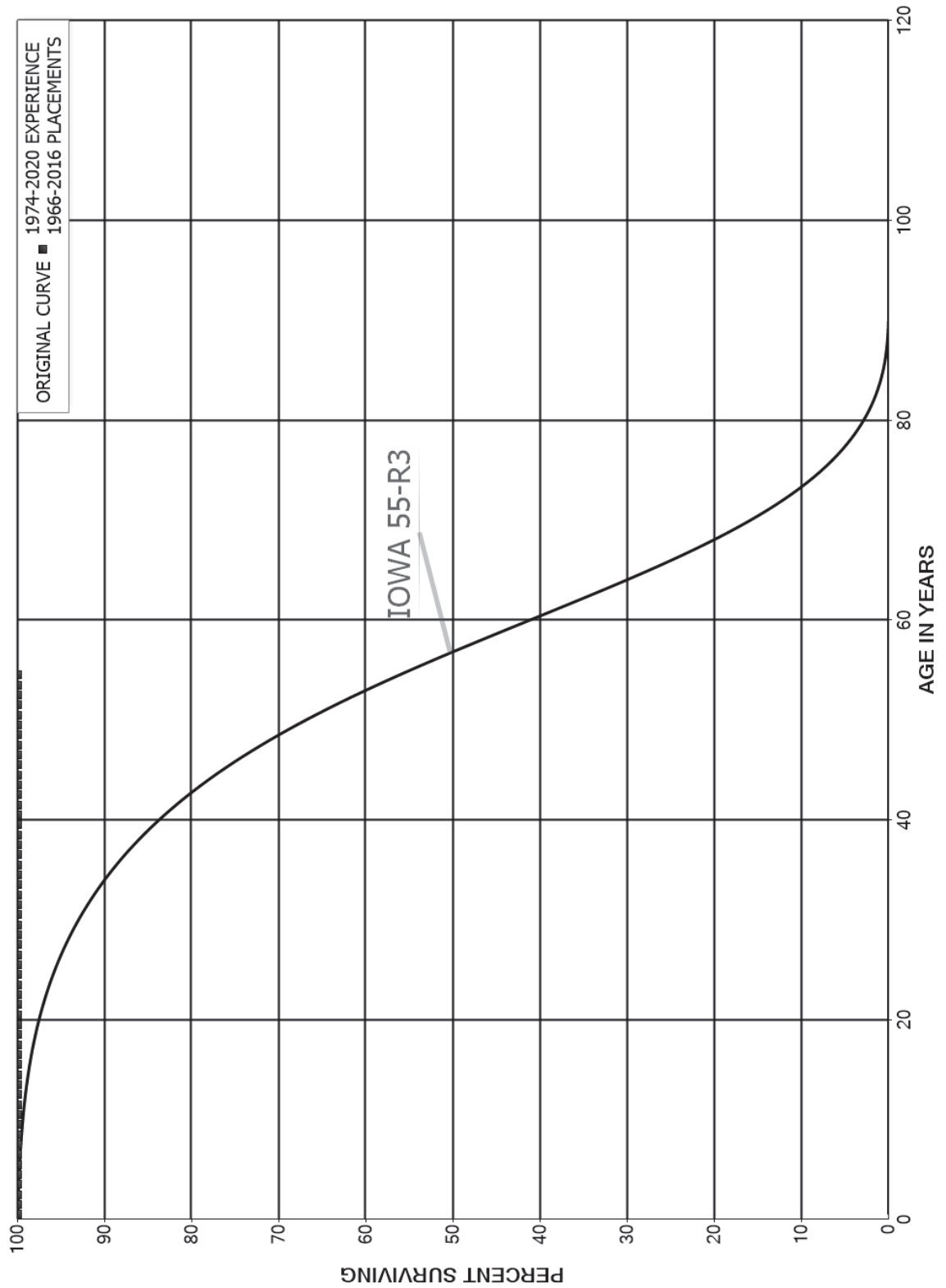
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 365.20 LAND RIGHTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1964-2009			EXPERIENCE BAND 1974-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	1,238,350		0.0000	1.0000	100.00
40.5	1,238,350		0.0000	1.0000	100.00
41.5	1,229,163		0.0000	1.0000	100.00
42.5	1,229,163		0.0000	1.0000	100.00
43.5	1,217,081		0.0000	1.0000	100.00
44.5	1,189,050		0.0000	1.0000	100.00
45.5	1,189,050		0.0000	1.0000	100.00
46.5	1,189,050		0.0000	1.0000	100.00
47.5	1,189,050		0.0000	1.0000	100.00
48.5	1,189,050		0.0000	1.0000	100.00
49.5	1,189,050		0.0000	1.0000	100.00
50.5	1,189,050		0.0000	1.0000	100.00
51.5	1,189,050		0.0000	1.0000	100.00
52.5	1,168,447		0.0000	1.0000	100.00
53.5	1,009,167		0.0000	1.0000	100.00
54.5	539,190		0.0000	1.0000	100.00
55.5	94,094		0.0000	1.0000	100.00
56.5					100.00

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 366.30 STRUCTURES AND IMPROVEMENTS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 366.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1966-2016

EXPERIENCE BAND 1974-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,460,088		0.0000	1.0000	100.00
0.5	1,460,088		0.0000	1.0000	100.00
1.5	1,460,088		0.0000	1.0000	100.00
2.5	1,460,088		0.0000	1.0000	100.00
3.5	1,460,088		0.0000	1.0000	100.00
4.5	955,999		0.0000	1.0000	100.00
5.5	955,999		0.0000	1.0000	100.00
6.5	955,999		0.0000	1.0000	100.00
7.5	1,041,984		0.0000	1.0000	100.00
8.5	1,041,984		0.0000	1.0000	100.00
9.5	1,041,984		0.0000	1.0000	100.00
10.5	1,041,984		0.0000	1.0000	100.00
11.5	1,041,984		0.0000	1.0000	100.00
12.5	1,041,984		0.0000	1.0000	100.00
13.5	1,041,984		0.0000	1.0000	100.00
14.5	1,041,984		0.0000	1.0000	100.00
15.5	984,166		0.0000	1.0000	100.00
16.5	85,985		0.0000	1.0000	100.00
17.5	85,985		0.0000	1.0000	100.00
18.5	85,985		0.0000	1.0000	100.00
19.5	85,985		0.0000	1.0000	100.00
20.5	85,985		0.0000	1.0000	100.00
21.5	85,985		0.0000	1.0000	100.00
22.5	85,985		0.0000	1.0000	100.00
23.5	85,985		0.0000	1.0000	100.00
24.5	85,985		0.0000	1.0000	100.00
25.5	85,985		0.0000	1.0000	100.00
26.5	85,985		0.0000	1.0000	100.00
27.5	85,985		0.0000	1.0000	100.00
28.5	85,985		0.0000	1.0000	100.00
29.5	85,985		0.0000	1.0000	100.00
30.5	85,985		0.0000	1.0000	100.00
31.5	85,985		0.0000	1.0000	100.00
32.5	85,985		0.0000	1.0000	100.00
33.5	85,985		0.0000	1.0000	100.00
34.5	85,985		0.0000	1.0000	100.00
35.5	85,985		0.0000	1.0000	100.00
36.5	85,985		0.0000	1.0000	100.00
37.5	85,985		0.0000	1.0000	100.00
38.5	85,985		0.0000	1.0000	100.00

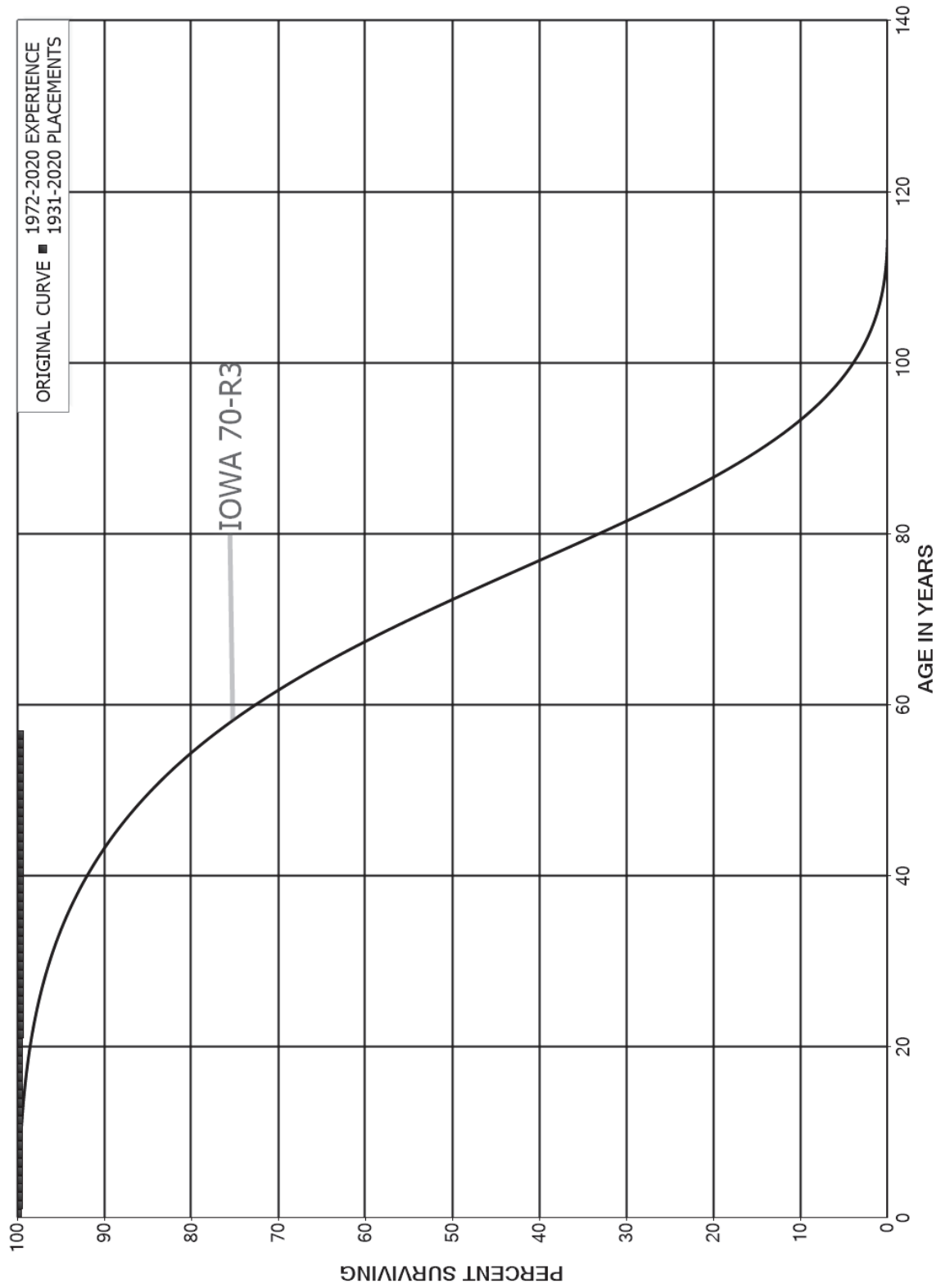
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 366.30 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1966-2016			EXPERIENCE BAND 1974-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	85,985		0.0000	1.0000	100.00
40.5	85,985		0.0000	1.0000	100.00
41.5	85,985		0.0000	1.0000	100.00
42.5	85,985		0.0000	1.0000	100.00
43.5	85,985		0.0000	1.0000	100.00
44.5	85,985		0.0000	1.0000	100.00
45.5	85,985		0.0000	1.0000	100.00
46.5	85,985		0.0000	1.0000	100.00
47.5	85,985		0.0000	1.0000	100.00
48.5	85,985		0.0000	1.0000	100.00
49.5	85,985		0.0000	1.0000	100.00
50.5	85,985		0.0000	1.0000	100.00
51.5	85,985		0.0000	1.0000	100.00
52.5	85,985		0.0000	1.0000	100.00
53.5	85,985		0.0000	1.0000	100.00
54.5					100.00

NORTHWEST NATURAL GAS COMPANY
 ACCOUNTS 367.00 THROUGH 367.26 MAINS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 367.00 THROUGH 367.26 MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1931-2020

EXPERIENCE BAND 1972-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	255,887,513		0.0000	1.0000	100.00
0.5	276,025,087	532,003	0.0019	0.9981	100.00
1.5	318,513,538		0.0000	1.0000	99.81
2.5	303,238,480		0.0000	1.0000	99.81
3.5	300,087,997	38,942	0.0001	0.9999	99.81
4.5	296,748,532		0.0000	1.0000	99.79
5.5	295,133,928		0.0000	1.0000	99.79
6.5	279,678,372		0.0000	1.0000	99.79
7.5	231,559,631	1,086	0.0000	1.0000	99.79
8.5	198,885,845		0.0000	1.0000	99.79
9.5	190,299,729	1,086	0.0000	1.0000	99.79
10.5	171,584,630	16,355	0.0001	0.9999	99.79
11.5	166,967,763		0.0000	1.0000	99.78
12.5	166,967,763		0.0000	1.0000	99.78
13.5	166,853,012		0.0000	1.0000	99.78
14.5	166,852,755		0.0000	1.0000	99.78
15.5	166,836,461	2,603	0.0000	1.0000	99.78
16.5	128,789,680		0.0000	1.0000	99.78
17.5	61,948,538	541	0.0000	1.0000	99.78
18.5	61,694,305		0.0000	1.0000	99.78
19.5	61,157,666		0.0000	1.0000	99.78
20.5	61,093,533	1,756	0.0000	1.0000	99.78
21.5	27,575,643		0.0000	1.0000	99.78
22.5	27,575,643		0.0000	1.0000	99.78
23.5	27,575,643		0.0000	1.0000	99.78
24.5	27,575,643		0.0000	1.0000	99.78
25.5	27,574,129	481	0.0000	1.0000	99.78
26.5	27,441,077		0.0000	1.0000	99.78
27.5	27,296,292		0.0000	1.0000	99.78
28.5	27,296,292	388	0.0000	1.0000	99.78
29.5	27,292,423		0.0000	1.0000	99.78
30.5	26,995,509		0.0000	1.0000	99.78
31.5	10,178,290		0.0000	1.0000	99.78
32.5	10,178,290		0.0000	1.0000	99.78
33.5	10,178,290		0.0000	1.0000	99.78
34.5	10,160,853		0.0000	1.0000	99.78
35.5	10,131,532		0.0000	1.0000	99.78
36.5	10,131,532		0.0000	1.0000	99.78
37.5	10,131,532		0.0000	1.0000	99.78
38.5	9,969,318		0.0000	1.0000	99.78

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 367.00 THROUGH 367.26 MAINS

ORIGINAL LIFE TABLE, CONT.

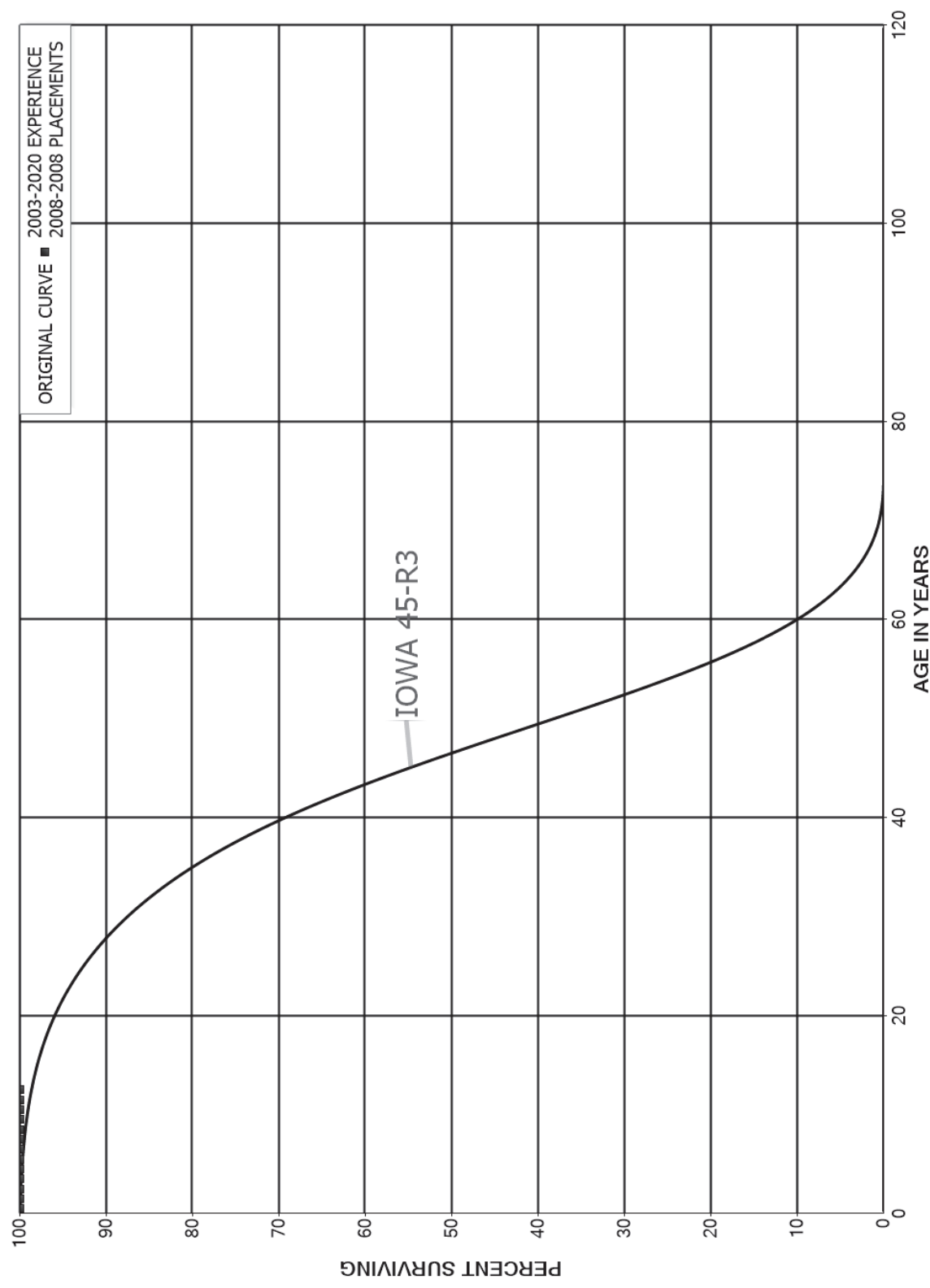
PLACEMENT BAND 1931-2020			EXPERIENCE BAND 1972-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	9,458,671		0.0000	1.0000	99.78
40.5	9,424,544		0.0000	1.0000	99.78
41.5	9,424,544		0.0000	1.0000	99.78
42.5	9,411,932		0.0000	1.0000	99.78
43.5	9,406,964		0.0000	1.0000	99.78
44.5	8,179,539		0.0000	1.0000	99.78
45.5	8,179,539		0.0000	1.0000	99.78
46.5	8,179,539		0.0000	1.0000	99.78
47.5	8,179,539		0.0000	1.0000	99.78
48.5	8,160,658		0.0000	1.0000	99.78
49.5	8,160,658		0.0000	1.0000	99.78
50.5	8,160,658		0.0000	1.0000	99.78
51.5	8,143,634		0.0000	1.0000	99.78
52.5	8,139,304		0.0000	1.0000	99.78
53.5	8,041,218		0.0000	1.0000	99.78
54.5	4,791,489		0.0000	1.0000	99.78
55.5	632,284		0.0000	1.0000	99.78
56.5	541		0.0000	1.0000	99.78
57.5	541		0.0000	1.0000	99.78
58.5	541		0.0000	1.0000	99.78
59.5	541		0.0000	1.0000	99.78
60.5	541		0.0000	1.0000	99.78
61.5	541		0.0000	1.0000	99.78
62.5	541		0.0000	1.0000	99.78
63.5	541		0.0000	1.0000	99.78
64.5	541		0.0000	1.0000	99.78
65.5	541		0.0000	1.0000	99.78
66.5	541		0.0000	1.0000	99.78
67.5	541		0.0000	1.0000	99.78
68.5	541		0.0000	1.0000	99.78
69.5	541		0.0000	1.0000	99.78
70.5	541		0.0000	1.0000	99.78
71.5	541		0.0000	1.0000	99.78
72.5	541		0.0000	1.0000	99.78
73.5	541		0.0000	1.0000	99.78
74.5	541		0.0000	1.0000	99.78
75.5	541		0.0000	1.0000	99.78
76.5	541		0.0000	1.0000	99.78
77.5	541		0.0000	1.0000	99.78
78.5	541		0.0000	1.0000	99.78

NORTHWEST NATURAL GAS COMPANY
 ACCOUNTS 367.00 THROUGH 367.26 MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1931-2020			EXPERIENCE BAND 1972-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	541		0.0000	1.0000	99.78
80.5	541		0.0000	1.0000	99.78
81.5	541		0.0000	1.0000	99.78
82.5	541		0.0000	1.0000	99.78
83.5	541		0.0000	1.0000	99.78
84.5	541		0.0000	1.0000	99.78
85.5	541		0.0000	1.0000	99.78
86.5	541		0.0000	1.0000	99.78
87.5	541		0.0000	1.0000	99.78
88.5	541		0.0000	1.0000	99.78
89.5					99.78

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 368.00 COMPRESSOR STATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



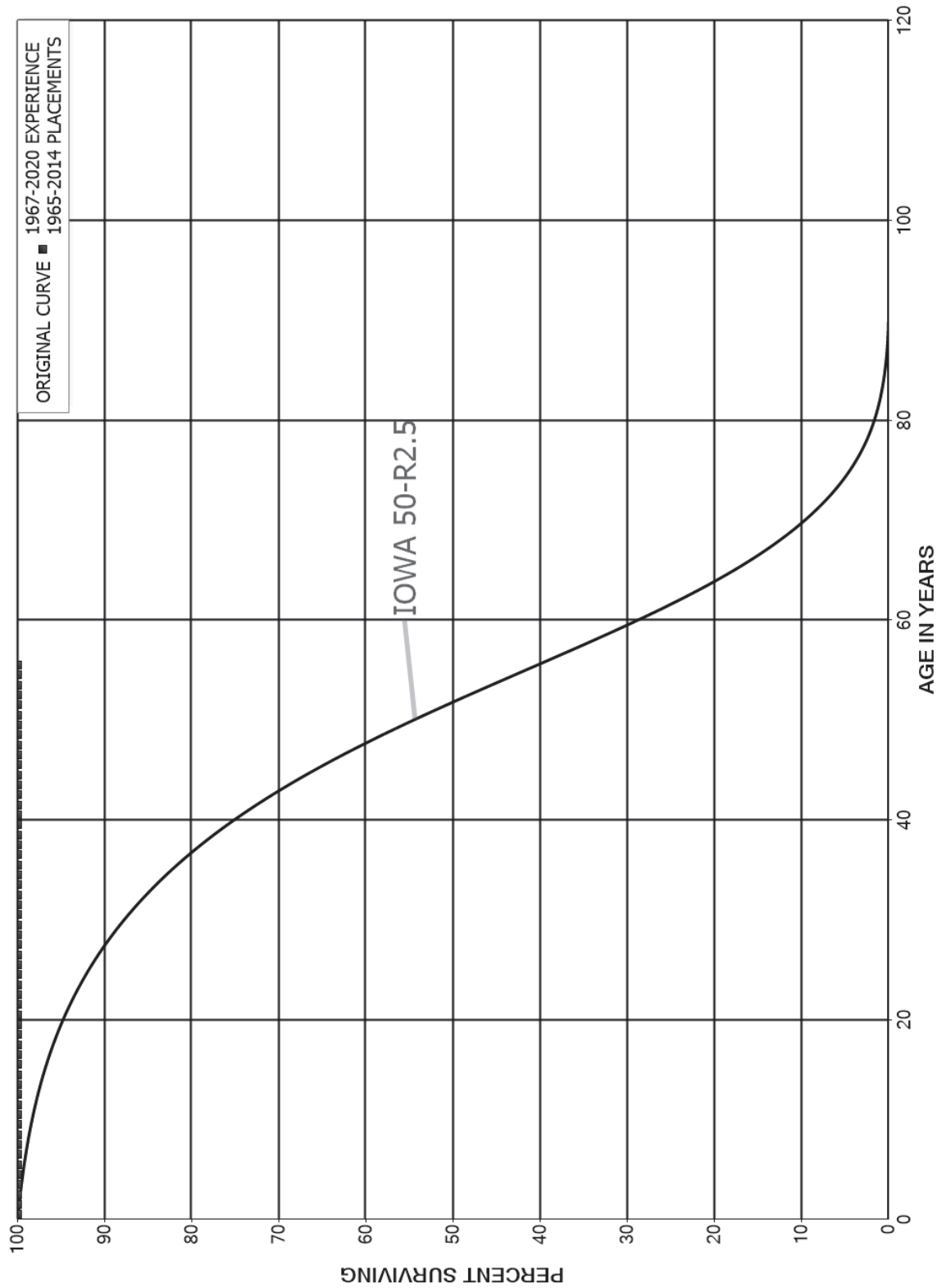
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 368.00 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2008-2008			EXPERIENCE BAND 2003-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	7,723,454		0.0000	1.0000	100.00
0.5	7,723,454		0.0000	1.0000	100.00
1.5	7,723,454		0.0000	1.0000	100.00
2.5	7,723,454		0.0000	1.0000	100.00
3.5	7,723,454		0.0000	1.0000	100.00
4.5	7,723,454		0.0000	1.0000	100.00
5.5	7,723,454		0.0000	1.0000	100.00
6.5	7,723,454		0.0000	1.0000	100.00
7.5	7,723,454		0.0000	1.0000	100.00
8.5	7,723,454		0.0000	1.0000	100.00
9.5	7,723,454		0.0000	1.0000	100.00
10.5	7,723,454		0.0000	1.0000	100.00
11.5	7,723,454		0.0000	1.0000	100.00
12.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 369.00 MEASURING AND REGULATING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 369.00 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1965-2014			EXPERIENCE BAND 1967-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,811,857		0.0000	1.0000	100.00
0.5	3,838,490	585	0.0002	0.9998	100.00
1.5	4,082,641		0.0000	1.0000	99.98
2.5	3,989,184		0.0000	1.0000	99.98
3.5	3,982,729		0.0000	1.0000	99.98
4.5	3,982,729		0.0000	1.0000	99.98
5.5	3,982,729		0.0000	1.0000	99.98
6.5	3,876,362		0.0000	1.0000	99.98
7.5	3,875,501	638	0.0002	0.9998	99.98
8.5	3,672,766		0.0000	1.0000	99.97
9.5	3,661,168		0.0000	1.0000	99.97
10.5	3,661,168		0.0000	1.0000	99.97
11.5	3,661,168		0.0000	1.0000	99.97
12.5	3,661,168		0.0000	1.0000	99.97
13.5	3,661,168		0.0000	1.0000	99.97
14.5	3,527,854		0.0000	1.0000	99.97
15.5	3,527,854		0.0000	1.0000	99.97
16.5	396,697		0.0000	1.0000	99.97
17.5	207,616		0.0000	1.0000	99.97
18.5	195,625		0.0000	1.0000	99.97
19.5	195,625		0.0000	1.0000	99.97
20.5	195,625		0.0000	1.0000	99.97
21.5	195,625		0.0000	1.0000	99.97
22.5	195,625		0.0000	1.0000	99.97
23.5	195,625		0.0000	1.0000	99.97
24.5	195,625		0.0000	1.0000	99.97
25.5	195,625		0.0000	1.0000	99.97
26.5	195,625		0.0000	1.0000	99.97
27.5	195,625		0.0000	1.0000	99.97
28.5	118,019		0.0000	1.0000	99.97
29.5	118,019		0.0000	1.0000	99.97
30.5	118,019		0.0000	1.0000	99.97
31.5	118,019		0.0000	1.0000	99.97
32.5	118,019		0.0000	1.0000	99.97
33.5	91,081		0.0000	1.0000	99.97
34.5	91,081		0.0000	1.0000	99.97
35.5	91,081		0.0000	1.0000	99.97
36.5	91,081		0.0000	1.0000	99.97
37.5	91,081		0.0000	1.0000	99.97
38.5	91,081		0.0000	1.0000	99.97

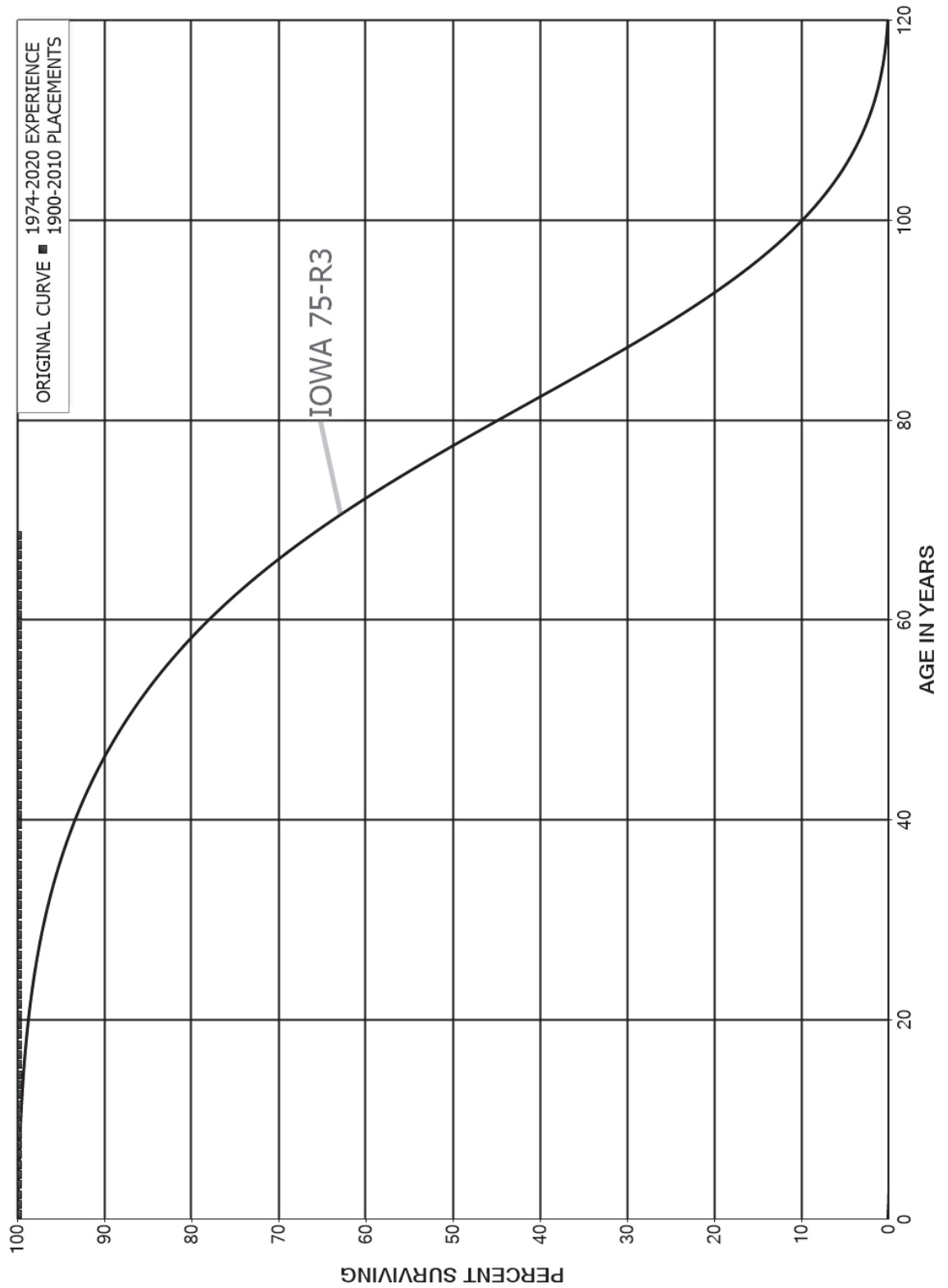
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 369.00 MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1965-2014			EXPERIENCE BAND 1967-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	91,081		0.0000	1.0000	99.97
40.5	91,081		0.0000	1.0000	99.97
41.5	91,081		0.0000	1.0000	99.97
42.5	91,081		0.0000	1.0000	99.97
43.5	45,638		0.0000	1.0000	99.97
44.5	45,638		0.0000	1.0000	99.97
45.5	45,638		0.0000	1.0000	99.97
46.5	45,638		0.0000	1.0000	99.97
47.5	45,638		0.0000	1.0000	99.97
48.5	45,638		0.0000	1.0000	99.97
49.5	45,638		0.0000	1.0000	99.97
50.5	45,638		0.0000	1.0000	99.97
51.5	45,638		0.0000	1.0000	99.97
52.5	45,638		0.0000	1.0000	99.97
53.5	40,610		0.0000	1.0000	99.97
54.5	14,697		0.0000	1.0000	99.97
55.5					99.97

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 374.20 LAND RIGHTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2010

EXPERIENCE BAND 1974-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,657,830		0.0000	1.0000	100.00
0.5	1,657,830		0.0000	1.0000	100.00
1.5	1,638,506		0.0000	1.0000	100.00
2.5	1,650,827		0.0000	1.0000	100.00
3.5	1,650,827		0.0000	1.0000	100.00
4.5	1,650,827		0.0000	1.0000	100.00
5.5	1,660,496		0.0000	1.0000	100.00
6.5	1,660,496		0.0000	1.0000	100.00
7.5	1,660,496		0.0000	1.0000	100.00
8.5	1,660,496		0.0000	1.0000	100.00
9.5	1,660,496		0.0000	1.0000	100.00
10.5	1,582,283		0.0000	1.0000	100.00
11.5	1,583,506		0.0000	1.0000	100.00
12.5	1,583,606		0.0000	1.0000	100.00
13.5	1,583,606		0.0000	1.0000	100.00
14.5	1,583,606		0.0000	1.0000	100.00
15.5	1,583,806		0.0000	1.0000	100.00
16.5	1,183,828		0.0000	1.0000	100.00
17.5	882,154		0.0000	1.0000	100.00
18.5	770,286		0.0000	1.0000	100.00
19.5	717,371		0.0000	1.0000	100.00
20.5	702,613		0.0000	1.0000	100.00
21.5	678,680		0.0000	1.0000	100.00
22.5	663,555		0.0000	1.0000	100.00
23.5	629,536		0.0000	1.0000	100.00
24.5	611,427		0.0000	1.0000	100.00
25.5	498,713		0.0000	1.0000	100.00
26.5	455,477		0.0000	1.0000	100.00
27.5	425,600		0.0000	1.0000	100.00
28.5	360,634		0.0000	1.0000	100.00
29.5	175,569		0.0000	1.0000	100.00
30.5	165,563		0.0000	1.0000	100.00
31.5	90,569		0.0000	1.0000	100.00
32.5	86,667		0.0000	1.0000	100.00
33.5	76,934		0.0000	1.0000	100.00
34.5	73,182		0.0000	1.0000	100.00
35.5	68,403		0.0000	1.0000	100.00
36.5	67,639		0.0000	1.0000	100.00
37.5	67,387		0.0000	1.0000	100.00
38.5	66,348		0.0000	1.0000	100.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2010			EXPERIENCE BAND 1974-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	57,628		0.0000	1.0000	100.00
40.5	56,063		0.0000	1.0000	100.00
41.5	54,474		0.0000	1.0000	100.00
42.5	47,629		0.0000	1.0000	100.00
43.5	37,352		0.0000	1.0000	100.00
44.5	36,548		0.0000	1.0000	100.00
45.5	32,908		0.0000	1.0000	100.00
46.5	29,604		0.0000	1.0000	100.00
47.5	29,604		0.0000	1.0000	100.00
48.5	29,604		0.0000	1.0000	100.00
49.5	27,097		0.0000	1.0000	100.00
50.5	27,097		0.0000	1.0000	100.00
51.5	27,097		0.0000	1.0000	100.00
52.5	17,428		0.0000	1.0000	100.00
53.5	17,428		0.0000	1.0000	100.00
54.5	17,428		0.0000	1.0000	100.00
55.5	17,428		0.0000	1.0000	100.00
56.5	16,678		0.0000	1.0000	100.00
57.5	13,253		0.0000	1.0000	100.00
58.5	13,153		0.0000	1.0000	100.00
59.5	13,153		0.0000	1.0000	100.00
60.5	12,953		0.0000	1.0000	100.00
61.5	12,953		0.0000	1.0000	100.00
62.5	12,953		0.0000	1.0000	100.00
63.5	12,953		0.0000	1.0000	100.00
64.5	1,813		0.0000	1.0000	100.00
65.5	1,813		0.0000	1.0000	100.00
66.5	1,813		0.0000	1.0000	100.00
67.5	1,813		0.0000	1.0000	100.00
68.5					100.00
69.5					
70.5					
71.5					
72.5					
73.5	208,257		0.0000		
74.5	208,257		0.0000		
75.5	208,257		0.0000		
76.5	208,257		0.0000		
77.5	208,257		0.0000		
78.5	208,257		0.0000		

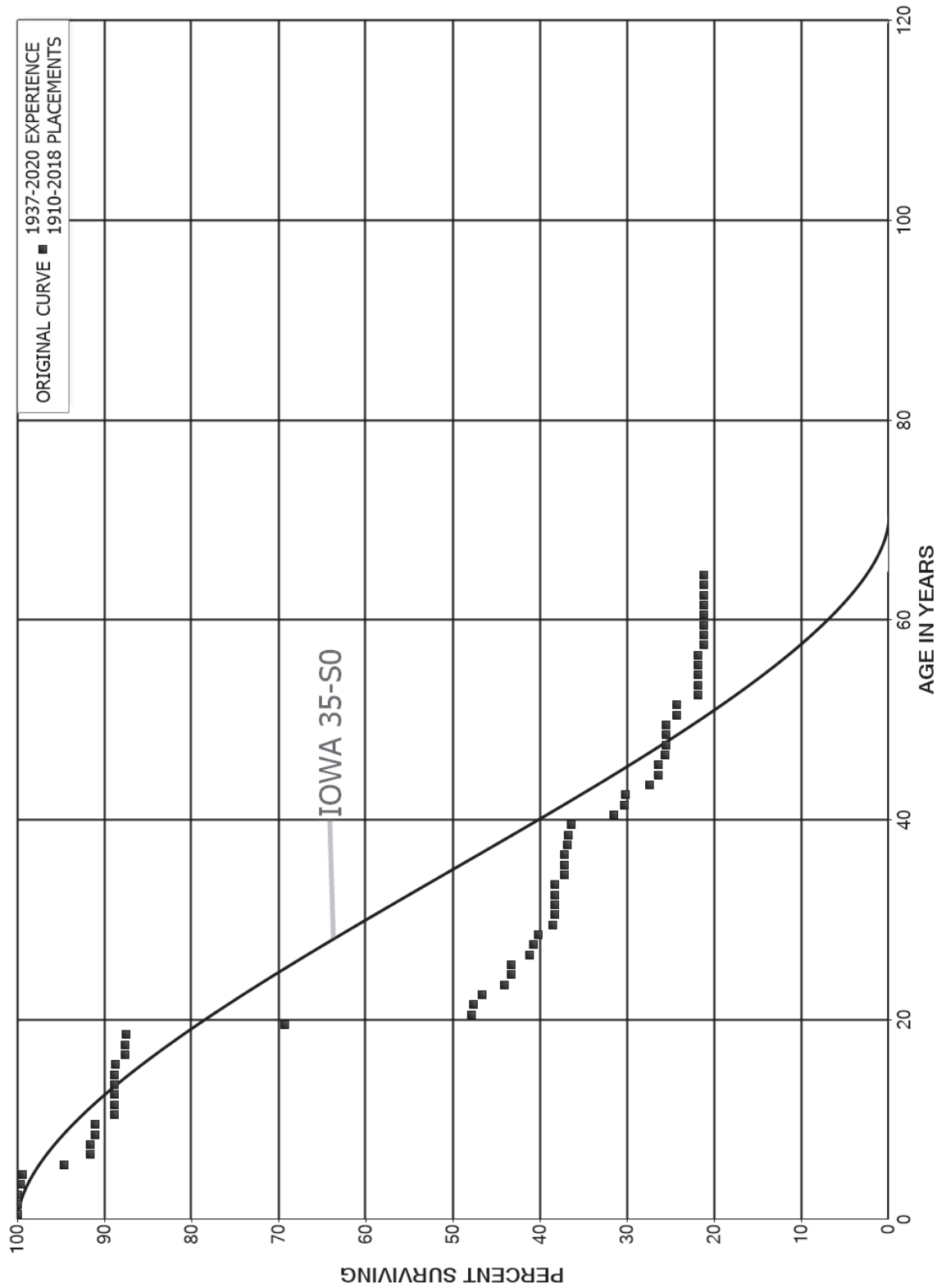
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2010			EXPERIENCE BAND 1974-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	208,257		0.0000		
80.5	208,257		0.0000		
81.5	208,257		0.0000		
82.5	208,257		0.0000		
83.5	208,257		0.0000		
84.5	208,257		0.0000		
85.5	208,257		0.0000		
86.5	208,257		0.0000		
87.5	208,257		0.0000		
88.5	208,257		0.0000		
89.5	208,257		0.0000		
90.5	208,257		0.0000		
91.5	208,257		0.0000		
92.5	208,257		0.0000		
93.5	208,257		0.0000		
94.5	208,257		0.0000		
95.5	208,257		0.0000		
96.5	208,257		0.0000		
97.5	208,257		0.0000		
98.5	208,257		0.0000		
99.5	208,257		0.0000		
100.5	208,257		0.0000		
101.5	208,257		0.0000		
102.5	208,257		0.0000		
103.5	208,257		0.0000		
104.5	208,257		0.0000		
105.5	208,257		0.0000		
106.5	208,257		0.0000		
107.5	208,257		0.0000		
108.5	208,257		0.0000		
109.5	208,257		0.0000		
110.5	208,257		0.0000		
111.5	208,257		0.0000		
112.5	208,257		0.0000		
113.5	208,257		0.0000		
114.5	208,257		0.0000		
115.5	208,257		0.0000		
116.5	208,257		0.0000		
117.5	208,257		0.0000		
118.5	208,257		0.0000		
119.5	208,257		0.0000		
120.5					

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 375.00 STRUCTURES AND IMPROVEMENTS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 375.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2018

EXPERIENCE BAND 1937-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,548,149		0.0000	1.0000	100.00
0.5	1,548,149	119	0.0001	0.9999	100.00
1.5	1,548,149	582	0.0004	0.9996	99.99
2.5	1,464,971	5,004	0.0034	0.9966	99.95
3.5	1,464,971	2,755	0.0019	0.9981	99.61
4.5	108,808	5,302	0.0487	0.9513	99.43
5.5	108,808	3,403	0.0313	0.9687	94.58
6.5	108,808		0.0000	1.0000	91.62
7.5	108,808	611	0.0056	0.9944	91.62
8.5	108,808		0.0000	1.0000	91.11
9.5	110,952	2,752	0.0248	0.9752	91.11
10.5	110,952		0.0000	1.0000	88.85
11.5	110,952		0.0000	1.0000	88.85
12.5	110,952		0.0000	1.0000	88.85
13.5	110,952		0.0000	1.0000	88.85
14.5	110,952	170	0.0015	0.9985	88.85
15.5	99,983	1,206	0.0121	0.9879	88.71
16.5	99,983		0.0000	1.0000	87.64
17.5	99,983	167	0.0017	0.9983	87.64
18.5	99,983	20,760	0.2076	0.7924	87.50
19.5	99,553	30,809	0.3095	0.6905	69.33
20.5	99,553	506	0.0051	0.9949	47.87
21.5	99,553	2,221	0.0223	0.9777	47.63
22.5	99,553	5,411	0.0544	0.9456	46.57
23.5	99,403	1,664	0.0167	0.9833	44.04
24.5	99,403	118	0.0012	0.9988	43.30
25.5	99,403	4,717	0.0475	0.9525	43.25
26.5	99,403	1,209	0.0122	0.9878	41.20
27.5	97,496	1,250	0.0128	0.9872	40.69
28.5	97,496	4,092	0.0420	0.9580	40.17
29.5	93,680	588	0.0063	0.9937	38.49
30.5	67,622		0.0000	1.0000	38.25
31.5	67,622		0.0000	1.0000	38.25
32.5	67,622	23	0.0003	0.9997	38.25
33.5	67,622	1,870	0.0277	0.9723	38.23
34.5	65,874		0.0000	1.0000	37.17
35.5	65,874		0.0000	1.0000	37.17
36.5	65,874	639	0.0097	0.9903	37.17
37.5	65,874	150	0.0023	0.9977	36.81
38.5	65,874	588	0.0089	0.9911	36.73

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 375.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2018			EXPERIENCE BAND 1937-2020			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	65,874	8,863	0.1345	0.8655	36.40	
40.5	57,179	2,300	0.0402	0.9598	31.50	
41.5	54,879	167	0.0030	0.9970	30.24	
42.5	54,879	5,090	0.0927	0.9073	30.15	
43.5	54,757	1,928	0.0352	0.9648	27.35	
44.5	52,840		0.0000	1.0000	26.39	
45.5	52,840	1,623	0.0307	0.9693	26.39	
46.5	52,840	107	0.0020	0.9980	25.58	
47.5	52,840	4	0.0001	0.9999	25.52	
48.5	52,840		0.0000	1.0000	25.52	
49.5	52,840	2,607	0.0493	0.9507	25.52	
50.5	52,840		0.0000	1.0000	24.26	
51.5	58,646	5,806	0.0990	0.9010	24.26	
52.5	52,840		0.0000	1.0000	21.86	
53.5	52,840		0.0000	1.0000	21.86	
54.5	52,840		0.0000	1.0000	21.86	
55.5	52,542		0.0000	1.0000	21.86	
56.5	52,542	1,625	0.0309	0.9691	21.86	
57.5	52,542		0.0000	1.0000	21.18	
58.5	49,800		0.0000	1.0000	21.18	
59.5	49,074		0.0000	1.0000	21.18	
60.5	42,091		0.0000	1.0000	21.18	
61.5	41,220		0.0000	1.0000	21.18	
62.5	37,913		0.0000	1.0000	21.18	
63.5	37,913		0.0000	1.0000	21.18	
64.5	4,985		0.0000	1.0000	21.18	
65.5	4,985		0.0000	1.0000	21.18	
66.5	4,985		0.0000	1.0000	21.18	
67.5	4,971		0.0000	1.0000	21.18	
68.5	4,971		0.0000	1.0000	21.18	
69.5	4,971		0.0000	1.0000	21.18	
70.5	4,971		0.0000	1.0000	21.18	
71.5	4,971		0.0000	1.0000	21.18	
72.5	4,971		0.0000	1.0000	21.18	
73.5	4,971		0.0000	1.0000	21.18	
74.5	4,971		0.0000	1.0000	21.18	
75.5	4,971		0.0000	1.0000	21.18	
76.5	4,971		0.0000	1.0000	21.18	
77.5	4,971		0.0000	1.0000	21.18	
78.5	4,971		0.0000	1.0000	21.18	

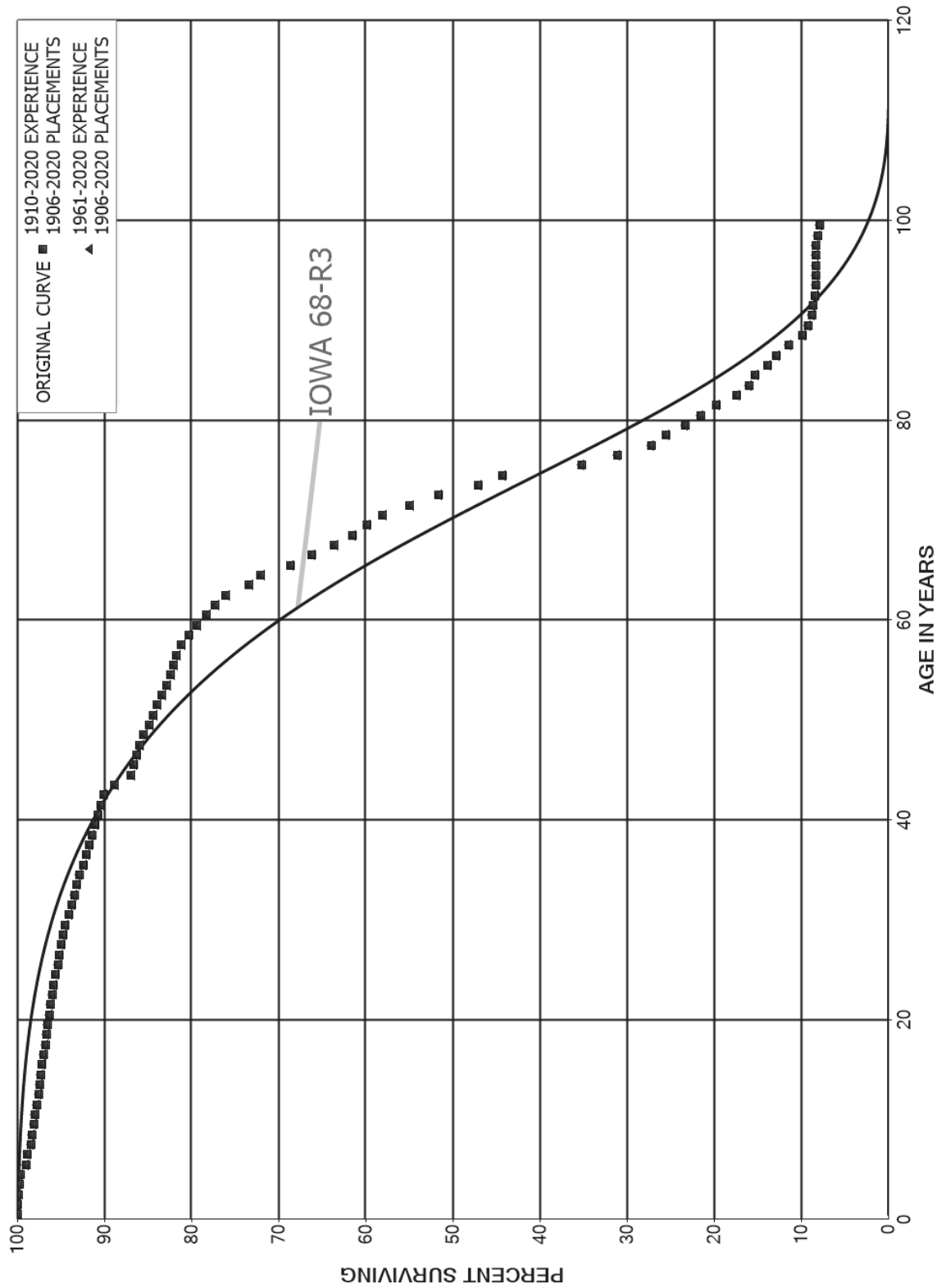
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 375.00 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2018			EXPERIENCE BAND 1937-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	4,971		0.0000	1.0000	21.18
80.5	4,971		0.0000	1.0000	21.18
81.5	4,971		0.0000	1.0000	21.18
82.5	4,971		0.0000	1.0000	21.18
83.5	4,971		0.0000	1.0000	21.18
84.5	4,971		0.0000	1.0000	21.18
85.5	4,971		0.0000	1.0000	21.18
86.5	4,971		0.0000	1.0000	21.18
87.5	4,971		0.0000	1.0000	21.18
88.5	4,971		0.0000	1.0000	21.18
89.5	4,971		0.0000	1.0000	21.18
90.5	4,971		0.0000	1.0000	21.18
91.5	4,971		0.0000	1.0000	21.18
92.5	4,971		0.0000	1.0000	21.18
93.5	2,827		0.0000	1.0000	21.18
94.5	2,827		0.0000	1.0000	21.18
95.5	2,827		0.0000	1.0000	21.18
96.5	2,827		0.0000	1.0000	21.18
97.5	2,827		0.0000	1.0000	21.18
98.5	2,827		0.0000	1.0000	21.18
99.5	2,827		0.0000	1.0000	21.18
100.5	2,827		0.0000	1.0000	21.18
101.5	2,827		0.0000	1.0000	21.18
102.5	2,827		0.0000	1.0000	21.18
103.5	2,827		0.0000	1.0000	21.18
104.5	2,827		0.0000	1.0000	21.18
105.5	2,827		0.0000	1.0000	21.18
106.5	2,827		0.0000	1.0000	21.18
107.5					21.18

NORTHWEST NATURAL GAS COMPANY
ACCOUNTS 376.11 AND 376.12 MAINS
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY
 ACCOUNTS 376.11 AND 376.12 MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1906-2020			EXPERIENCE BAND 1910-2020			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
0.0	1,375,666,581	207,386	0.0002	0.9998	100.00	
0.5	1,308,559,433	1,223,019	0.0009	0.9991	99.98	
1.5	1,257,473,341	986,331	0.0008	0.9992	99.89	
2.5	1,198,822,689	1,251,150	0.0010	0.9990	99.81	
3.5	1,156,651,691	1,476,293	0.0013	0.9987	99.71	
4.5	1,114,056,340	7,294,600	0.0065	0.9935	99.58	
5.5	1,072,813,122	1,554,522	0.0014	0.9986	98.93	
6.5	1,037,090,599	4,137,139	0.0040	0.9960	98.79	
7.5	1,011,199,990	1,348,662	0.0013	0.9987	98.39	
8.5	974,577,209	1,407,629	0.0014	0.9986	98.26	
9.5	947,720,676	1,836,676	0.0019	0.9981	98.12	
10.5	927,225,159	1,911,450	0.0021	0.9979	97.93	
11.5	893,837,350	1,630,009	0.0018	0.9982	97.73	
12.5	861,031,176	1,247,284	0.0014	0.9986	97.55	
13.5	821,947,683	1,282,534	0.0016	0.9984	97.41	
14.5	784,891,397	965,541	0.0012	0.9988	97.26	
15.5	746,712,023	1,458,924	0.0020	0.9980	97.14	
16.5	710,598,536	1,363,235	0.0019	0.9981	96.95	
17.5	662,175,913	975,377	0.0015	0.9985	96.76	
18.5	630,802,640	868,249	0.0014	0.9986	96.62	
19.5	602,522,914	996,010	0.0017	0.9983	96.48	
20.5	570,270,246	845,763	0.0015	0.9985	96.33	
21.5	539,811,468	993,176	0.0018	0.9982	96.18	
22.5	508,265,804	1,154,346	0.0023	0.9977	96.01	
23.5	471,123,550	1,048,906	0.0022	0.9978	95.79	
24.5	434,825,081	1,079,267	0.0025	0.9975	95.57	
25.5	404,233,780	829,174	0.0021	0.9979	95.34	
26.5	373,361,584	886,715	0.0024	0.9976	95.14	
27.5	343,636,118	788,784	0.0023	0.9977	94.92	
28.5	316,567,458	748,414	0.0024	0.9976	94.70	
29.5	293,526,031	1,276,312	0.0043	0.9957	94.47	
30.5	275,334,137	992,183	0.0036	0.9964	94.06	
31.5	257,096,455	808,568	0.0031	0.9969	93.72	
32.5	241,484,562	673,189	0.0028	0.9972	93.43	
33.5	227,580,667	753,824	0.0033	0.9967	93.17	
34.5	211,138,235	1,126,210	0.0053	0.9947	92.86	
35.5	194,226,685	699,835	0.0036	0.9964	92.36	
36.5	176,397,679	569,601	0.0032	0.9968	92.03	
37.5	164,456,338	527,207	0.0032	0.9968	91.73	
38.5	152,713,690	586,988	0.0038	0.9962	91.44	

NORTHWEST NATURAL GAS COMPANY
ACCOUNTS 376.11 AND 376.12 MAINS
ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2020			EXPERIENCE BAND 1910-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	139,790,176	524,429	0.0038	0.9962	91.09
40.5	127,726,129	489,570	0.0038	0.9962	90.75
41.5	116,251,795	374,347	0.0032	0.9968	90.40
42.5	107,005,386	1,549,178	0.0145	0.9855	90.11
43.5	99,994,385	2,098,210	0.0210	0.9790	88.80
44.5	93,034,604	291,528	0.0031	0.9969	86.94
45.5	88,329,374	359,723	0.0041	0.9959	86.67
46.5	82,405,079	343,747	0.0042	0.9958	86.32
47.5	76,152,771	421,390	0.0055	0.9945	85.96
48.5	70,950,470	534,143	0.0075	0.9925	85.48
49.5	64,843,961	317,385	0.0049	0.9951	84.84
50.5	59,638,058	340,746	0.0057	0.9943	84.42
51.5	53,956,195	358,767	0.0066	0.9934	83.94
52.5	48,178,121	296,028	0.0061	0.9939	83.38
53.5	43,244,593	246,518	0.0057	0.9943	82.87
54.5	36,611,327	135,098	0.0037	0.9963	82.40
55.5	31,014,640	140,508	0.0045	0.9955	82.09
56.5	25,303,047	159,621	0.0063	0.9937	81.72
57.5	20,566,781	221,076	0.0107	0.9893	81.20
58.5	19,099,938	234,190	0.0123	0.9877	80.33
59.5	15,591,228	218,117	0.0140	0.9860	79.35
60.5	12,005,079	153,577	0.0128	0.9872	78.24
61.5	9,761,117	150,758	0.0154	0.9846	77.24
62.5	7,702,550	271,581	0.0353	0.9647	76.04
63.5	6,339,074	114,457	0.0181	0.9819	73.36
64.5	4,030,870	188,773	0.0468	0.9532	72.04
65.5	3,745,339	135,331	0.0361	0.9639	68.66
66.5	3,581,176	141,725	0.0396	0.9604	66.18
67.5	3,403,879	109,024	0.0320	0.9680	63.56
68.5	3,248,459	88,388	0.0272	0.9728	61.53
69.5	3,148,405	95,733	0.0304	0.9696	59.85
70.5	3,035,749	163,508	0.0539	0.9461	58.03
71.5	2,850,012	172,130	0.0604	0.9396	54.91
72.5	2,645,197	232,679	0.0880	0.9120	51.59
73.5	2,263,634	134,342	0.0593	0.9407	47.05
74.5	2,094,234	427,449	0.2041	0.7959	44.26
75.5	1,661,063	194,340	0.1170	0.8830	35.23
76.5	1,466,332	183,626	0.1252	0.8748	31.11
77.5	1,272,422	81,106	0.0637	0.9363	27.21
78.5	1,188,767	101,880	0.0857	0.9143	25.48

NORTHWEST NATURAL GAS COMPANY
 ACCOUNTS 376.11 AND 376.12 MAINS
 ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2020			EXPERIENCE BAND 1910-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,082,558	80,711	0.0746	0.9254	23.29
80.5	996,269	84,971	0.0853	0.9147	21.56
81.5	904,615	108,546	0.1200	0.8800	19.72
82.5	772,188	61,510	0.0797	0.9203	17.35
83.5	695,369	32,057	0.0461	0.9539	15.97
84.5	660,652	62,266	0.0942	0.9058	15.23
85.5	584,975	42,757	0.0731	0.9269	13.80
86.5	531,370	56,489	0.1063	0.8937	12.79
87.5	463,114	66,303	0.1432	0.8568	11.43
88.5	394,688	24,048	0.0609	0.9391	9.79
89.5	345,697	17,942	0.0519	0.9481	9.20
90.5	271,695	2,017	0.0074	0.9926	8.72
91.5	266,811	9,320	0.0349	0.9651	8.65
92.5	239,767	500	0.0021	0.9979	8.35
93.5	239,834	306	0.0013	0.9987	8.33
94.5	202,604	511	0.0025	0.9975	8.32
95.5	175,339	252	0.0014	0.9986	8.30
96.5	180,780	460	0.0025	0.9975	8.29
97.5	162,847	3,122	0.0192	0.9808	8.27
98.5	119,423	4,135	0.0346	0.9654	8.11
99.5	98,358	913	0.0093	0.9907	7.83
100.5	90,538	4,783	0.0528	0.9472	7.76
101.5	83,547	5,719	0.0685	0.9315	7.35
102.5	76,225	4,399	0.0577	0.9423	6.84
103.5	69,762	1,475	0.0211	0.9789	6.45
104.5	60,619	1,580	0.0261	0.9739	6.31
105.5	55,808	1,018	0.0182	0.9818	6.15
106.5	54,553	170	0.0031	0.9969	6.04
107.5	32,965		0.0000	1.0000	6.02
108.5	35,425		0.0000	1.0000	6.02
109.5	35,419	281	0.0079	0.9921	6.02
110.5	15,210		0.0000	1.0000	5.97
111.5	38		0.0000	1.0000	5.97
112.5	38		0.0000	1.0000	5.97
113.5	38		0.0000	1.0000	5.97
114.5					5.97

NORTHWEST NATURAL GAS COMPANY
 ACCOUNTS 376.11 AND 376.12 MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1906-2020			EXPERIENCE BAND 1961-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,351,414,066	207,386	0.0002	0.9998	100.00
0.5	1,288,560,979	1,223,019	0.0009	0.9991	99.98
1.5	1,240,591,942	986,331	0.0008	0.9992	99.89
2.5	1,185,207,206	1,251,150	0.0011	0.9989	99.81
3.5	1,145,383,232	1,476,293	0.0013	0.9987	99.70
4.5	1,107,043,638	7,294,600	0.0066	0.9934	99.58
5.5	1,066,072,070	1,554,522	0.0015	0.9985	98.92
6.5	1,030,525,058	4,137,139	0.0040	0.9960	98.78
7.5	1,004,850,504	1,348,662	0.0013	0.9987	98.38
8.5	968,469,150	1,407,629	0.0015	0.9985	98.25
9.5	941,757,899	1,836,676	0.0020	0.9980	98.10
10.5	921,374,099	1,911,450	0.0021	0.9979	97.91
11.5	888,075,281	1,630,009	0.0018	0.9982	97.71
12.5	855,411,899	1,247,284	0.0015	0.9985	97.53
13.5	816,693,294	1,282,534	0.0016	0.9984	97.39
14.5	779,752,885	965,541	0.0012	0.9988	97.24
15.5	741,605,035	1,458,699	0.0020	0.9980	97.12
16.5	705,528,453	1,363,235	0.0019	0.9981	96.92
17.5	657,134,098	975,377	0.0015	0.9985	96.74
18.5	625,781,436	868,249	0.0014	0.9986	96.59
19.5	597,535,429	996,010	0.0017	0.9983	96.46
20.5	565,311,093	845,763	0.0015	0.9985	96.30
21.5	534,881,842	993,176	0.0019	0.9981	96.15
22.5	503,370,504	1,154,346	0.0023	0.9977	95.98
23.5	466,256,957	1,048,906	0.0022	0.9978	95.76
24.5	429,979,808	1,079,267	0.0025	0.9975	95.54
25.5	399,406,223	829,174	0.0021	0.9979	95.30
26.5	368,576,950	886,715	0.0024	0.9976	95.10
27.5	338,860,596	788,784	0.0023	0.9977	94.87
28.5	311,869,469	748,414	0.0024	0.9976	94.65
29.5	288,970,320	1,276,312	0.0044	0.9956	94.43
30.5	270,914,193	992,183	0.0037	0.9963	94.01
31.5	252,765,055	808,568	0.0032	0.9968	93.66
32.5	237,296,673	673,189	0.0028	0.9972	93.37
33.5	223,551,333	753,824	0.0034	0.9966	93.10
34.5	207,382,602	1,126,210	0.0054	0.9946	92.79
35.5	190,992,314	699,835	0.0037	0.9963	92.28
36.5	173,392,812	569,601	0.0033	0.9967	91.94
37.5	161,722,477	527,207	0.0033	0.9967	91.64
38.5	150,370,733	586,988	0.0039	0.9961	91.34

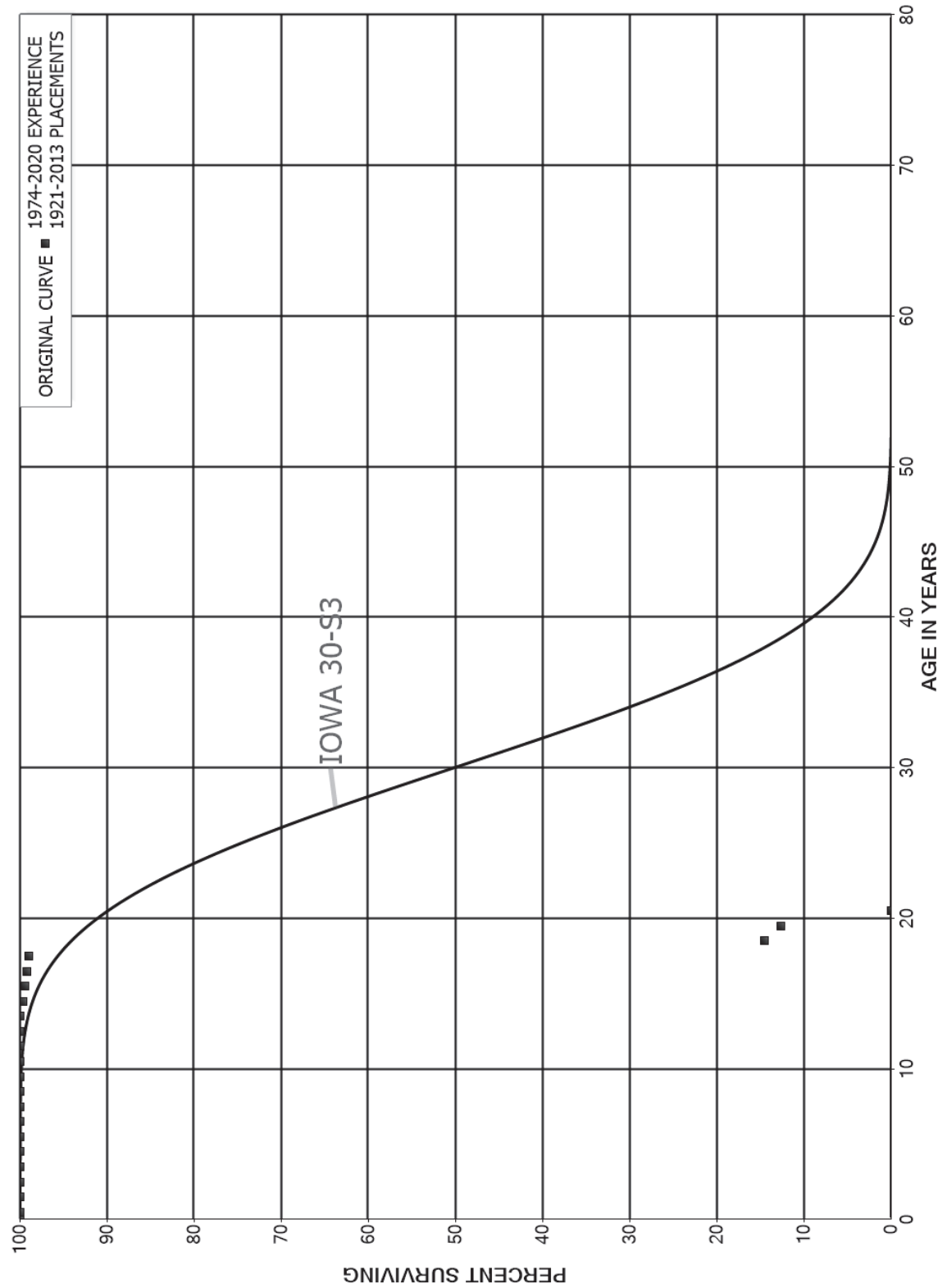
NORTHWEST NATURAL GAS COMPANY
 ACCOUNTS 376.11 AND 376.12 MAINS
 ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2020			EXPERIENCE BAND 1961-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	137,604,993	524,429	0.0038	0.9962	90.99
40.5	125,638,609	489,570	0.0039	0.9961	90.64
41.5	114,218,537	374,347	0.0033	0.9967	90.29
42.5	105,031,137	1,549,178	0.0147	0.9853	89.99
43.5	98,034,405	2,098,210	0.0214	0.9786	88.66
44.5	91,126,593	291,528	0.0032	0.9968	86.77
45.5	86,556,325	359,723	0.0042	0.9958	86.49
46.5	80,687,706	343,747	0.0043	0.9957	86.13
47.5	74,546,597	421,390	0.0057	0.9943	85.76
48.5	69,604,355	534,143	0.0077	0.9923	85.28
49.5	64,017,017	317,385	0.0050	0.9950	84.62
50.5	59,638,058	340,746	0.0057	0.9943	84.20
51.5	53,956,195	358,767	0.0066	0.9934	83.72
52.5	48,178,121	296,028	0.0061	0.9939	83.17
53.5	43,244,593	246,518	0.0057	0.9943	82.65
54.5	36,611,327	135,098	0.0037	0.9963	82.18
55.5	31,014,640	140,508	0.0045	0.9955	81.88
56.5	25,303,047	159,621	0.0063	0.9937	81.51
57.5	20,566,781	221,076	0.0107	0.9893	80.99
58.5	19,099,938	234,190	0.0123	0.9877	80.12
59.5	15,591,228	218,117	0.0140	0.9860	79.14
60.5	12,005,079	153,577	0.0128	0.9872	78.03
61.5	9,761,117	150,758	0.0154	0.9846	77.04
62.5	7,702,550	271,581	0.0353	0.9647	75.85
63.5	6,339,074	114,457	0.0181	0.9819	73.17
64.5	4,030,870	188,773	0.0468	0.9532	71.85
65.5	3,745,339	135,331	0.0361	0.9639	68.49
66.5	3,581,176	141,725	0.0396	0.9604	66.01
67.5	3,403,879	109,024	0.0320	0.9680	63.40
68.5	3,248,459	88,388	0.0272	0.9728	61.37
69.5	3,148,405	95,733	0.0304	0.9696	59.70
70.5	3,035,749	163,508	0.0539	0.9461	57.88
71.5	2,850,012	172,130	0.0604	0.9396	54.77
72.5	2,645,197	232,679	0.0880	0.9120	51.46
73.5	2,263,634	134,342	0.0593	0.9407	46.93
74.5	2,094,234	427,449	0.2041	0.7959	44.15
75.5	1,661,063	194,340	0.1170	0.8830	35.14
76.5	1,466,332	183,626	0.1252	0.8748	31.03
77.5	1,272,422	81,106	0.0637	0.9363	27.14
78.5	1,188,767	101,880	0.0857	0.9143	25.41

NORTHWEST NATURAL GAS COMPANY
 ACCOUNTS 376.11 AND 376.12 MAINS
 ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1906-2020			EXPERIENCE BAND 1961-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,082,558	80,711	0.0746	0.9254	23.23
80.5	996,269	84,971	0.0853	0.9147	21.50
81.5	904,615	108,546	0.1200	0.8800	19.67
82.5	772,188	61,510	0.0797	0.9203	17.31
83.5	695,369	32,057	0.0461	0.9539	15.93
84.5	660,652	62,266	0.0942	0.9058	15.19
85.5	584,975	42,757	0.0731	0.9269	13.76
86.5	531,370	56,489	0.1063	0.8937	12.76
87.5	463,114	66,303	0.1432	0.8568	11.40
88.5	394,688	24,048	0.0609	0.9391	9.77
89.5	345,697	17,942	0.0519	0.9481	9.17
90.5	271,695	2,017	0.0074	0.9926	8.70
91.5	266,811	9,320	0.0349	0.9651	8.63
92.5	239,767	500	0.0021	0.9979	8.33
93.5	239,834	306	0.0013	0.9987	8.31
94.5	202,604	511	0.0025	0.9975	8.30
95.5	175,339	252	0.0014	0.9986	8.28
96.5	180,780	460	0.0025	0.9975	8.27
97.5	162,847	3,122	0.0192	0.9808	8.25
98.5	119,423	4,135	0.0346	0.9654	8.09
99.5	98,358	913	0.0093	0.9907	7.81
100.5	90,538	4,783	0.0528	0.9472	7.74
101.5	83,547	5,719	0.0685	0.9315	7.33
102.5	76,225	4,399	0.0577	0.9423	6.83
103.5	69,762	1,475	0.0211	0.9789	6.43
104.5	60,619	1,580	0.0261	0.9739	6.30
105.5	55,808	1,018	0.0182	0.9818	6.13
106.5	54,553	170	0.0031	0.9969	6.02
107.5	32,965		0.0000	1.0000	6.00
108.5	35,425		0.0000	1.0000	6.00
109.5	35,419	281	0.0079	0.9921	6.00
110.5	15,210		0.0000	1.0000	5.95
111.5	38		0.0000	1.0000	5.95
112.5	38		0.0000	1.0000	5.95
113.5	38		0.0000	1.0000	5.95
114.5					5.95

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 377.00 COMPRESSOR STATION EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 377.00 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1921-2013			EXPERIENCE BAND 1974-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	969,942		0.0000	1.0000	100.00
0.5	969,942		0.0000	1.0000	100.00
1.5	969,942		0.0000	1.0000	100.00
2.5	818,380		0.0000	1.0000	100.00
3.5	818,380		0.0000	1.0000	100.00
4.5	818,380		0.0000	1.0000	100.00
5.5	818,380		0.0000	1.0000	100.00
6.5	818,380		0.0000	1.0000	100.00
7.5	818,380		0.0000	1.0000	100.00
8.5	818,380		0.0000	1.0000	100.00
9.5	818,380		0.0000	1.0000	100.00
10.5	818,723		0.0000	1.0000	100.00
11.5	818,723	343	0.0004	0.9996	100.00
12.5	821,132		0.0000	1.0000	99.96
13.5	823,074	2,752	0.0033	0.9967	99.96
14.5	821,705	1,942	0.0024	0.9976	99.62
15.5	821,730	1,383	0.0017	0.9983	99.39
16.5	825,785	1,967	0.0024	0.9976	99.22
17.5	6,375	5,438	0.8530	0.1470	98.98
18.5	7,180	937	0.1305	0.8695	14.55
19.5	6,243	6,243	1.0000		12.65
20.5					
21.5					
22.5					
23.5	6,883		0.0000		
24.5	7,084	6,883	0.9716		
25.5	18,727	201	0.0107		
26.5	30,122	18,526	0.6150		
27.5	19,331	11,596	0.5999		
28.5	7,773	7,735	0.9951		
29.5	124,160	38	0.0003		
30.5	124,122	124,122	1.0000		
31.5					
32.5					
33.5					
34.5					
35.5	4,800		0.0000		
36.5	4,992	4,800	0.9615		
37.5	3,005	192	0.0639		
38.5	2,813	2,813	1.0000		

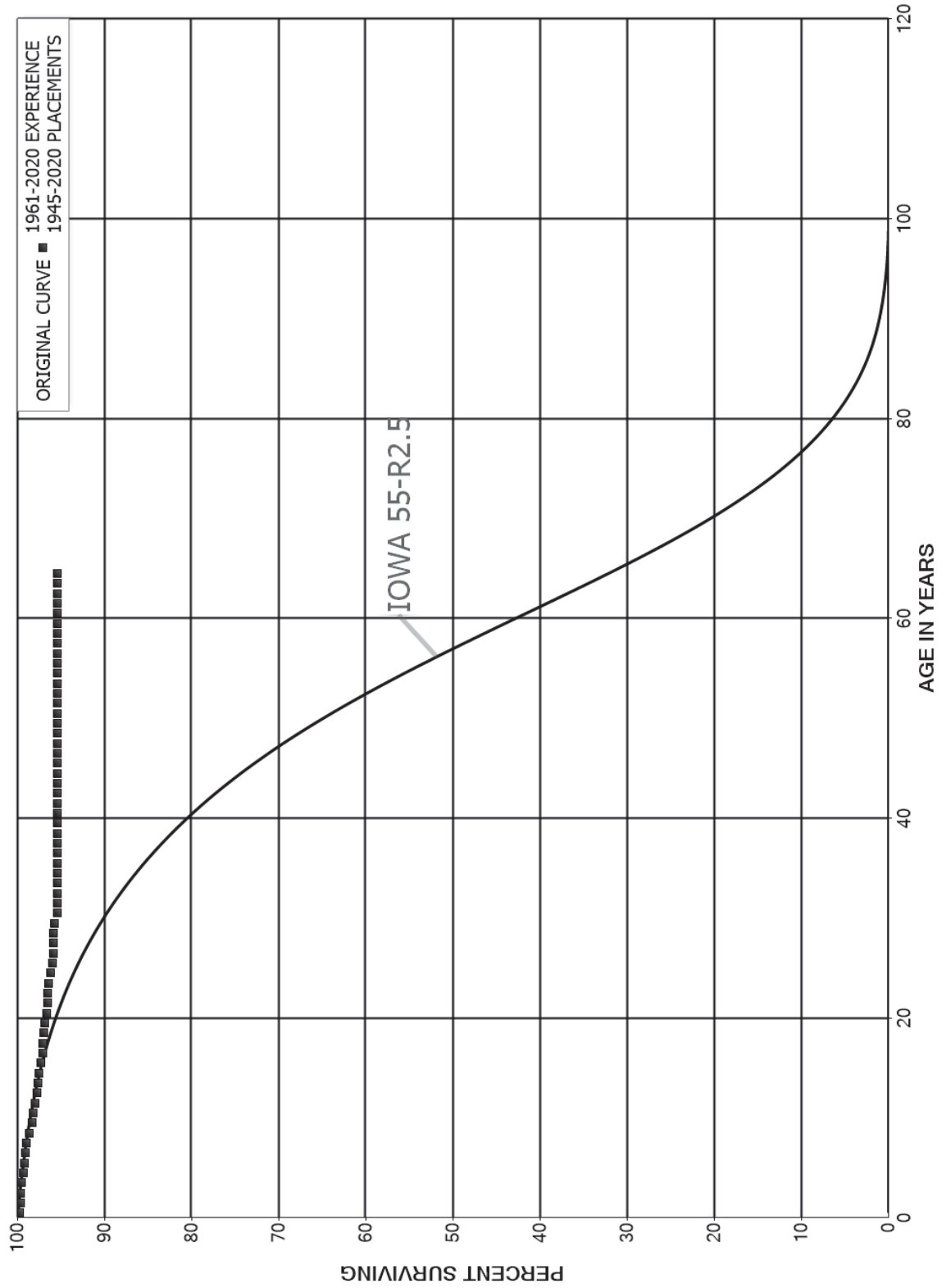
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 377.00 COMPRESSOR STATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1921-2013			EXPERIENCE BAND 1974-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	80			0.0000	
40.5	80	80	1.0000		
41.5					
42.5					
43.5					
44.5					
45.5					
46.5	8,347		0.0000		
47.5	8,347	8,347	1.0000		
48.5	1,078		0.0000		
49.5	1,078	1,078	1.0000		
50.5					
51.5					
52.5	496		0.0000		
53.5	496	496	1.0000		
54.5					

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1945-2020

EXPERIENCE BAND 1961-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	41,625,031	96,154	0.0023	0.9977	100.00
0.5	38,812,866	50,408	0.0013	0.9987	99.77
1.5	37,540,712	23,346	0.0006	0.9994	99.64
2.5	34,825,117	35,463	0.0010	0.9990	99.58
3.5	33,948,249	48,116	0.0014	0.9986	99.48
4.5	32,119,521	35,988	0.0011	0.9989	99.34
5.5	31,277,592	60,968	0.0019	0.9981	99.22
6.5	29,076,684	40,407	0.0014	0.9986	99.03
7.5	25,986,271	86,601	0.0033	0.9967	98.89
8.5	23,547,466	56,131	0.0024	0.9976	98.56
9.5	22,170,743	44,542	0.0020	0.9980	98.33
10.5	20,354,374	45,263	0.0022	0.9978	98.13
11.5	18,788,677	30,746	0.0016	0.9984	97.91
12.5	17,739,922	22,749	0.0013	0.9987	97.75
13.5	16,380,224	28,527	0.0017	0.9983	97.63
14.5	15,592,938	29,471	0.0019	0.9981	97.46
15.5	14,702,000	27,254	0.0019	0.9981	97.27
16.5	13,743,414	8,958	0.0007	0.9993	97.09
17.5	13,179,512	11,154	0.0008	0.9992	97.03
18.5	12,422,639	21,303	0.0017	0.9983	96.95
19.5	12,316,045	21,145	0.0017	0.9983	96.78
20.5	11,352,741	7,411	0.0007	0.9993	96.61
21.5	10,563,655	10,221	0.0010	0.9990	96.55
22.5	9,952,998	7,084	0.0007	0.9993	96.46
23.5	9,081,484	15,025	0.0017	0.9983	96.39
24.5	7,931,453	26,495	0.0033	0.9967	96.23
25.5	7,230,799	3,146	0.0004	0.9996	95.91
26.5	6,651,729	2,495	0.0004	0.9996	95.87
27.5	6,376,010	2,674	0.0004	0.9996	95.83
28.5	5,909,250	6,125	0.0010	0.9990	95.79
29.5	5,363,176	15,335	0.0029	0.9971	95.69
30.5	5,105,317	2,392	0.0005	0.9995	95.42
31.5	4,802,540		0.0000	1.0000	95.37
32.5	4,532,569		0.0000	1.0000	95.37
33.5	4,224,783		0.0000	1.0000	95.37
34.5	3,853,186		0.0000	1.0000	95.37
35.5	3,582,955		0.0000	1.0000	95.37
36.5	2,986,536		0.0000	1.0000	95.37
37.5	2,741,832		0.0000	1.0000	95.37
38.5	2,495,298		0.0000	1.0000	95.37

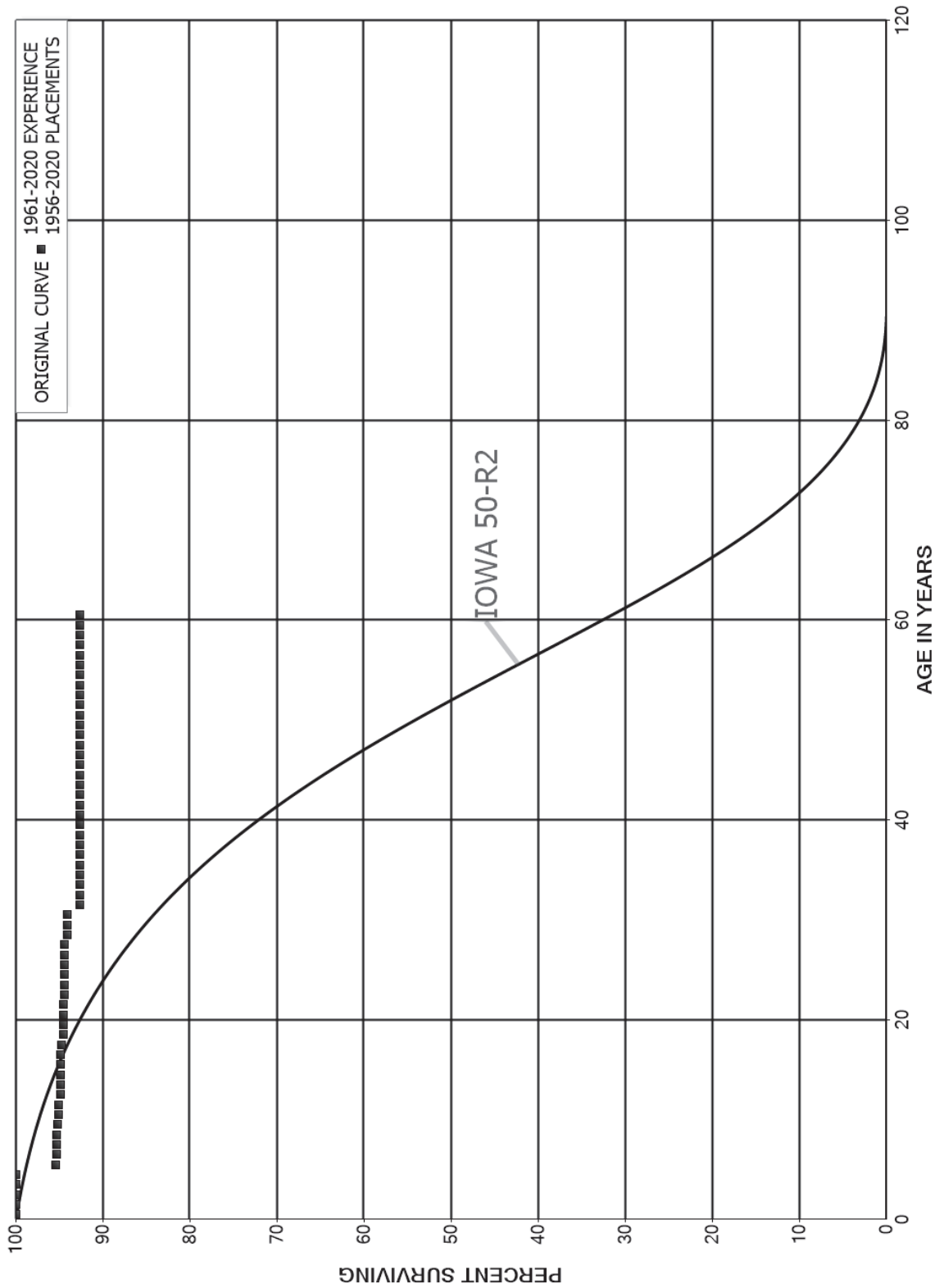
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1945-2020			EXPERIENCE BAND 1961-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	2,373,003		0.0000	1.0000	95.37
40.5	2,213,567		0.0000	1.0000	95.37
41.5	2,054,315		0.0000	1.0000	95.37
42.5	2,011,767		0.0000	1.0000	95.37
43.5	1,802,340		0.0000	1.0000	95.37
44.5	1,755,842		0.0000	1.0000	95.37
45.5	1,708,116		0.0000	1.0000	95.37
46.5	1,639,403		0.0000	1.0000	95.37
47.5	1,511,705		0.0000	1.0000	95.37
48.5	1,357,468		0.0000	1.0000	95.37
49.5	1,253,312		0.0000	1.0000	95.37
50.5	1,208,496		0.0000	1.0000	95.37
51.5	1,104,792		0.0000	1.0000	95.37
52.5	987,855		0.0000	1.0000	95.37
53.5	892,844		0.0000	1.0000	95.37
54.5	725,427		0.0000	1.0000	95.37
55.5	570,056		0.0000	1.0000	95.37
56.5	487,461		0.0000	1.0000	95.37
57.5	420,586		0.0000	1.0000	95.37
58.5	376,889		0.0000	1.0000	95.37
59.5	310,232		0.0000	1.0000	95.37
60.5	203,029		0.0000	1.0000	95.37
61.5	166,720		0.0000	1.0000	95.37
62.5	123,845		0.0000	1.0000	95.37
63.5	93,005		0.0000	1.0000	95.37
64.5	44,547		0.0000	1.0000	95.37
65.5	31,141		0.0000	1.0000	95.37
66.5	27,206		0.0000	1.0000	95.37
67.5	19,633		0.0000	1.0000	95.37
68.5	15,732		0.0000	1.0000	95.37
69.5	15,732		0.0000	1.0000	95.37
70.5	13,147		0.0000	1.0000	95.37
71.5					95.37

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

ORIGINAL LIFE TABLE

PLACEMENT BAND 1956-2020

EXPERIENCE BAND 1961-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	18,043,074	110	0.0000	1.0000	100.00
0.5	16,491,299	235	0.0000	1.0000	100.00
1.5	14,059,040	1,228	0.0001	0.9999	100.00
2.5	11,595,579	4,769	0.0004	0.9996	99.99
3.5	8,491,845	4,411	0.0005	0.9995	99.95
4.5	5,998,416	273,564	0.0456	0.9544	99.90
5.5	4,850,418	1,235	0.0003	0.9997	95.34
6.5	4,018,207	838	0.0002	0.9998	95.32
7.5	1,927,667	881	0.0005	0.9995	95.30
8.5	1,851,205	1,074	0.0006	0.9994	95.25
9.5	1,791,929	1,551	0.0009	0.9991	95.20
10.5	1,656,581		0.0000	1.0000	95.11
11.5	1,528,539	4,000	0.0026	0.9974	95.11
12.5	1,524,539		0.0000	1.0000	94.87
13.5	1,524,539		0.0000	1.0000	94.87
14.5	1,524,539		0.0000	1.0000	94.87
15.5	1,369,232		0.0000	1.0000	94.87
16.5	1,368,930	1,383	0.0010	0.9990	94.87
17.5	1,367,547	3,498	0.0026	0.9974	94.77
18.5	1,367,327		0.0000	1.0000	94.53
19.5	1,326,688		0.0000	1.0000	94.53
20.5	1,119,880	831	0.0007	0.9993	94.53
21.5	1,119,049	116	0.0001	0.9999	94.46
22.5	1,118,933	520	0.0005	0.9995	94.45
23.5	1,118,413		0.0000	1.0000	94.40
24.5	1,089,712		0.0000	1.0000	94.40
25.5	1,089,712		0.0000	1.0000	94.40
26.5	1,089,712		0.0000	1.0000	94.40
27.5	1,088,733	4,292	0.0039	0.9961	94.40
28.5	1,082,611		0.0000	1.0000	94.03
29.5	1,047,652		0.0000	1.0000	94.03
30.5	1,044,914	15,797	0.0151	0.9849	94.03
31.5	1,024,179		0.0000	1.0000	92.61
32.5	992,184		0.0000	1.0000	92.61
33.5	979,664		0.0000	1.0000	92.61
34.5	895,551		0.0000	1.0000	92.61
35.5	895,551		0.0000	1.0000	92.61
36.5	866,500		0.0000	1.0000	92.61
37.5	859,527		0.0000	1.0000	92.61
38.5	830,451		0.0000	1.0000	92.61

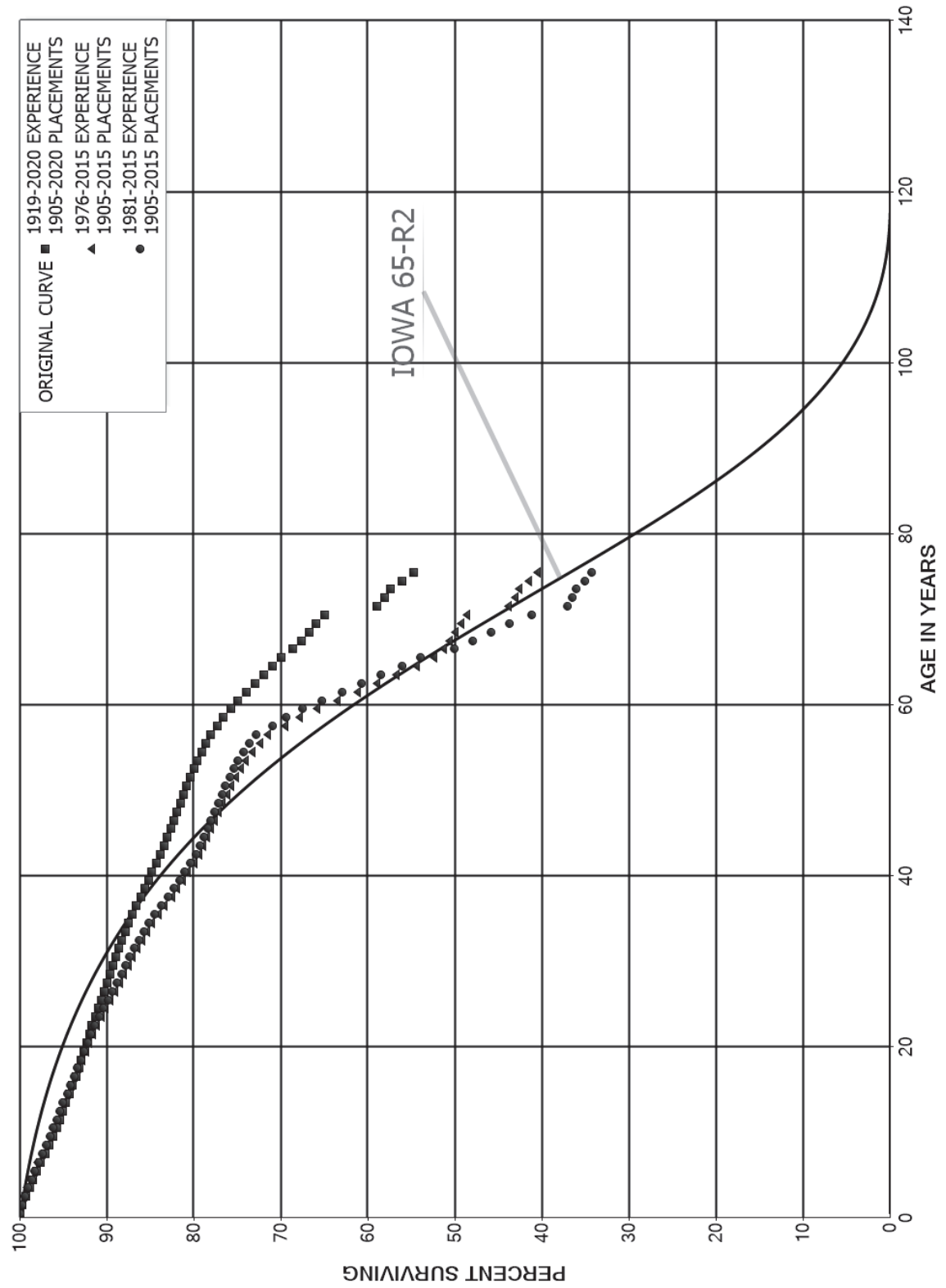
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1956-2020			EXPERIENCE BAND 1961-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	793,737		0.0000	1.0000	92.61
40.5	696,182		0.0000	1.0000	92.61
41.5	696,182		0.0000	1.0000	92.61
42.5	696,182		0.0000	1.0000	92.61
43.5	648,984		0.0000	1.0000	92.61
44.5	629,219		0.0000	1.0000	92.61
45.5	617,455		0.0000	1.0000	92.61
46.5	608,726		0.0000	1.0000	92.61
47.5	580,682		0.0000	1.0000	92.61
48.5	495,890		0.0000	1.0000	92.61
49.5	466,037		0.0000	1.0000	92.61
50.5	456,050		0.0000	1.0000	92.61
51.5	420,982		0.0000	1.0000	92.61
52.5	408,617		0.0000	1.0000	92.61
53.5	400,659		0.0000	1.0000	92.61
54.5	380,063		0.0000	1.0000	92.61
55.5	323,399		0.0000	1.0000	92.61
56.5	259,255		0.0000	1.0000	92.61
57.5	241,009		0.0000	1.0000	92.61
58.5	232,890		0.0000	1.0000	92.61
59.5	223,874		0.0000	1.0000	92.61
60.5	97,566		0.0000	1.0000	92.61
61.5	97,426		0.0000	1.0000	92.61
62.5	90,855		0.0000	1.0000	92.61
63.5	90,440		0.0000	1.0000	92.61
64.5					92.61

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 380.00 SERVICES
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2020

EXPERIENCE BAND 1919-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	936,715,007	672,609	0.0007	0.9993	100.00
0.5	901,194,434	1,952,135	0.0022	0.9978	99.93
1.5	859,235,299	3,898,334	0.0045	0.9955	99.71
2.5	821,298,967	3,296,506	0.0040	0.9960	99.26
3.5	785,807,765	3,244,740	0.0041	0.9959	98.86
4.5	753,883,756	3,206,539	0.0043	0.9957	98.45
5.5	722,891,944	3,434,684	0.0048	0.9952	98.03
6.5	693,099,755	3,615,390	0.0052	0.9948	97.57
7.5	665,198,606	3,340,034	0.0050	0.9950	97.06
8.5	644,809,409	2,830,703	0.0044	0.9956	96.57
9.5	625,812,710	2,536,259	0.0041	0.9959	96.15
10.5	611,279,484	2,315,859	0.0038	0.9962	95.76
11.5	589,232,230	2,181,033	0.0037	0.9963	95.40
12.5	567,358,993	2,180,031	0.0038	0.9962	95.04
13.5	545,360,551	2,454,887	0.0045	0.9955	94.68
14.5	520,259,538	1,921,605	0.0037	0.9963	94.25
15.5	496,810,913	1,851,915	0.0037	0.9963	93.90
16.5	471,424,089	1,736,801	0.0037	0.9963	93.55
17.5	444,437,713	1,478,123	0.0033	0.9967	93.21
18.5	418,815,742	1,474,129	0.0035	0.9965	92.90
19.5	394,290,613	1,304,638	0.0033	0.9967	92.57
20.5	369,992,525	1,196,207	0.0032	0.9968	92.26
21.5	342,544,091	1,101,752	0.0032	0.9968	91.97
22.5	317,349,810	1,293,054	0.0041	0.9959	91.67
23.5	291,260,249	993,203	0.0034	0.9966	91.30
24.5	267,335,968	1,101,077	0.0041	0.9959	90.99
25.5	246,114,745	909,995	0.0037	0.9963	90.61
26.5	223,367,632	777,178	0.0035	0.9965	90.28
27.5	201,200,035	742,861	0.0037	0.9963	89.96
28.5	181,219,766	643,139	0.0035	0.9965	89.63
29.5	162,018,296	594,167	0.0037	0.9963	89.31
30.5	144,283,966	549,181	0.0038	0.9962	88.98
31.5	128,725,935	554,625	0.0043	0.9957	88.65
32.5	116,741,639	497,952	0.0043	0.9957	88.26
33.5	106,145,721	465,441	0.0044	0.9956	87.89
34.5	95,983,537	488,543	0.0051	0.9949	87.50
35.5	85,476,549	475,827	0.0056	0.9944	87.06
36.5	76,686,409	465,782	0.0061	0.9939	86.57
37.5	69,772,470	347,021	0.0050	0.9950	86.05
38.5	63,588,129	311,831	0.0049	0.9951	85.62

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2020			EXPERIENCE BAND 1919-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	55,995,664	255,116	0.0046	0.9954	85.20
40.5	48,564,280	302,216	0.0062	0.9938	84.81
41.5	42,532,192	239,293	0.0056	0.9944	84.28
42.5	37,663,271	179,412	0.0048	0.9952	83.81
43.5	34,242,502	155,246	0.0045	0.9955	83.41
44.5	31,384,061	146,710	0.0047	0.9953	83.03
45.5	29,081,213	126,889	0.0044	0.9956	82.64
46.5	26,587,708	113,921	0.0043	0.9957	82.28
47.5	23,780,780	112,820	0.0047	0.9953	81.93
48.5	21,120,130	97,098	0.0046	0.9954	81.54
49.5	18,736,025	80,634	0.0043	0.9957	81.17
50.5	16,639,793	84,822	0.0051	0.9949	80.82
51.5	14,577,538	76,315	0.0052	0.9948	80.40
52.5	12,777,893	60,450	0.0047	0.9953	79.98
53.5	11,109,402	68,011	0.0061	0.9939	79.61
54.5	9,446,906	61,206	0.0065	0.9935	79.12
55.5	8,033,662	49,761	0.0062	0.9938	78.61
56.5	6,823,738	72,150	0.0106	0.9894	78.12
57.5	5,802,953	51,338	0.0088	0.9912	77.29
58.5	4,970,345	55,458	0.0112	0.9888	76.61
59.5	4,191,690	46,107	0.0110	0.9890	75.75
60.5	3,522,737	47,952	0.0136	0.9864	74.92
61.5	3,205,757	42,830	0.0134	0.9866	73.90
62.5	3,121,028	42,035	0.0135	0.9865	72.91
63.5	2,881,512	38,234	0.0133	0.9867	71.93
64.5	2,626,322	36,271	0.0138	0.9862	70.98
65.5	2,586,138	52,762	0.0204	0.9796	70.00
66.5	2,521,924	34,652	0.0137	0.9863	68.57
67.5	2,406,744	31,950	0.0133	0.9867	67.63
68.5	2,361,525	28,804	0.0122	0.9878	66.73
69.5	2,279,825	32,970	0.0145	0.9855	65.91
70.5	2,222,880	204,088	0.0918	0.9082	64.96
71.5	1,993,913	31,844	0.0160	0.9840	59.00
72.5	1,944,118	22,100	0.0114	0.9886	58.06
73.5	1,885,697	44,704	0.0237	0.9763	57.40
74.5	1,793,446	41,009	0.0229	0.9771	56.03
75.5	322,033	14,118	0.0438	0.9562	54.75
76.5	289,421	17,215	0.0595	0.9405	52.35
77.5	266,508	10,916	0.0410	0.9590	49.24
78.5	233,278	8,489	0.0364	0.9636	47.22

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2020			EXPERIENCE BAND 1919-2020			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	209,588	5,688	0.0271	0.9729	45.50	
80.5	190,750	6,199	0.0325	0.9675	44.27	
81.5	165,964	6,577	0.0396	0.9604	42.83	
82.5	144,624	6,541	0.0452	0.9548	41.13	
83.5	129,226	3,593	0.0278	0.9722	39.27	
84.5	119,533	3,489	0.0292	0.9708	38.18	
85.5	108,649	3,940	0.0363	0.9637	37.07	
86.5	101,077	2,001	0.0198	0.9802	35.72	
87.5	96,221	945	0.0098	0.9902	35.01	
88.5	90,773	739	0.0081	0.9919	34.67	
89.5	77,657	479	0.0062	0.9938	34.39	
90.5	73,101	17,183	0.2351	0.7649	34.18	
91.5	52,126	3,612	0.0693	0.9307	26.14	
92.5	46,022	1,691	0.0367	0.9633	24.33	
93.5	43,816	2,033	0.0464	0.9536	23.44	
94.5	37,237	4,228	0.1135	0.8865	22.35	
95.5	25,280	1,361	0.0538	0.9462	19.81	
96.5	18,230	652	0.0357	0.9643	18.75	
97.5	16,249	308	0.0190	0.9810	18.08	
98.5	14,899	308	0.0207	0.9793	17.73	
99.5	14,591	393	0.0269	0.9731	17.37	
100.5	12,087	489	0.0404	0.9596	16.90	
101.5	9,794	447	0.0456	0.9544	16.22	
102.5	7,913	256	0.0323	0.9677	15.48	
103.5	7,657	328	0.0428	0.9572	14.98	
104.5	7,329	239	0.0326	0.9674	14.33	
105.5	7,019	109	0.0155	0.9845	13.87	
106.5	6,512	70	0.0108	0.9892	13.65	
107.5	6,406	63	0.0099	0.9901	13.50	
108.5	5,309		0.0000	1.0000	13.37	
109.5	5,309	42	0.0080	0.9920	13.37	
110.5	2,905	29	0.0101	0.9899	13.26	
111.5	2,823	38	0.0133	0.9867	13.13	
112.5	1,610	0	0.0001	0.9999	12.96	
113.5	1,610	22	0.0137	0.9863	12.95	
114.5	1,455		0.0000	1.0000	12.78	
115.5					12.78	

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2015

EXPERIENCE BAND 1976-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	720,889,710	568,357	0.0008	0.9992	100.00
0.5	694,668,175	1,319,582	0.0019	0.9981	99.92
1.5	669,224,242	2,325,246	0.0035	0.9965	99.73
2.5	645,259,170	2,426,756	0.0038	0.9962	99.38
3.5	626,569,824	2,497,748	0.0040	0.9960	99.01
4.5	610,526,074	2,472,689	0.0041	0.9959	98.62
5.5	598,723,462	2,659,992	0.0044	0.9956	98.22
6.5	578,494,534	2,715,397	0.0047	0.9953	97.78
7.5	557,994,341	2,676,125	0.0048	0.9952	97.32
8.5	537,545,260	2,410,751	0.0045	0.9955	96.85
9.5	514,495,328	2,077,535	0.0040	0.9960	96.42
10.5	492,436,156	1,938,105	0.0039	0.9961	96.03
11.5	468,676,863	1,885,282	0.0040	0.9960	95.65
12.5	442,867,326	1,821,114	0.0041	0.9959	95.27
13.5	418,275,210	2,121,702	0.0051	0.9949	94.88
14.5	394,205,527	1,696,741	0.0043	0.9957	94.40
15.5	370,573,726	1,634,305	0.0044	0.9956	93.99
16.5	343,550,694	1,579,612	0.0046	0.9954	93.57
17.5	318,443,478	1,352,378	0.0042	0.9958	93.14
18.5	292,656,096	1,372,112	0.0047	0.9953	92.75
19.5	268,738,218	1,226,661	0.0046	0.9954	92.31
20.5	247,325,684	1,104,720	0.0045	0.9955	91.89
21.5	224,300,630	1,026,199	0.0046	0.9954	91.48
22.5	201,968,171	1,221,880	0.0060	0.9940	91.06
23.5	181,633,202	924,927	0.0051	0.9949	90.51
24.5	162,206,271	1,038,777	0.0064	0.9936	90.05
25.5	144,233,499	849,065	0.0059	0.9941	89.48
26.5	128,475,042	722,228	0.0056	0.9944	88.95
27.5	116,388,458	688,326	0.0059	0.9941	88.45
28.5	105,767,470	602,401	0.0057	0.9943	87.93
29.5	95,638,161	545,296	0.0057	0.9943	87.42
30.5	85,040,072	514,671	0.0061	0.9939	86.93
31.5	76,220,574	508,309	0.0067	0.9933	86.40
32.5	69,258,973	453,214	0.0065	0.9935	85.82
33.5	62,967,415	423,259	0.0067	0.9933	85.26
34.5	55,241,506	444,813	0.0081	0.9919	84.69
35.5	47,620,517	420,601	0.0088	0.9912	84.01
36.5	41,432,905	414,302	0.0100	0.9900	83.27
37.5	36,357,672	284,751	0.0078	0.9922	82.43
38.5	32,805,062	256,538	0.0078	0.9922	81.79

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2015			EXPERIENCE BAND 1976-2015		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	29,832,670	197,897	0.0066	0.9934	81.15
40.5	27,443,601	250,959	0.0091	0.9909	80.61
41.5	24,780,872	187,074	0.0075	0.9925	79.87
42.5	21,865,982	128,482	0.0059	0.9941	79.27
43.5	19,175,421	103,663	0.0054	0.9946	78.80
44.5	16,784,617	95,564	0.0057	0.9943	78.38
45.5	14,667,606	73,061	0.0050	0.9950	77.93
46.5	12,636,145	69,320	0.0055	0.9945	77.54
47.5	10,844,455	74,557	0.0069	0.9931	77.12
48.5	9,173,923	60,559	0.0066	0.9934	76.59
49.5	7,520,358	41,650	0.0055	0.9945	76.08
50.5	6,131,636	48,594	0.0079	0.9921	75.66
51.5	4,952,428	37,454	0.0076	0.9924	75.06
52.5	3,983,679	29,080	0.0073	0.9927	74.49
53.5	3,186,154	33,901	0.0106	0.9894	73.95
54.5	2,433,070	28,099	0.0115	0.9885	73.16
55.5	1,790,535	23,591	0.0132	0.9868	72.32
56.5	1,505,509	40,874	0.0271	0.9729	71.36
57.5	1,419,987	34,434	0.0242	0.9758	69.43
58.5	1,198,812	36,150	0.0302	0.9698	67.74
59.5	953,754	32,807	0.0344	0.9656	65.70
60.5	925,219	35,288	0.0381	0.9619	63.44
61.5	894,135	31,566	0.0353	0.9647	61.02
62.5	800,969	30,164	0.0377	0.9623	58.87
63.5	780,897	31,842	0.0408	0.9592	56.65
64.5	737,210	27,775	0.0377	0.9623	54.34
65.5	2,392,221	50,900	0.0213	0.9787	52.29
66.5	2,314,777	32,520	0.0140	0.9860	51.18
67.5	2,264,134	29,278	0.0129	0.9871	50.46
68.5	2,197,401	26,661	0.0121	0.9879	49.81
69.5	2,122,725	30,528	0.0144	0.9856	49.20
70.5	2,070,922	203,366	0.0982	0.9018	48.50
71.5	1,848,667	30,801	0.0167	0.9833	43.73
72.5	1,812,016	21,566	0.0119	0.9881	43.01
73.5	1,767,770	44,206	0.0250	0.9750	42.49
74.5	1,707,862	40,533	0.0237	0.9763	41.43
75.5	246,198	13,597	0.0552	0.9448	40.45
76.5	213,666	16,861	0.0789	0.9211	38.21
77.5	181,699	10,614	0.0584	0.9416	35.20
78.5	161,862	8,019	0.0495	0.9505	33.14

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2015			EXPERIENCE BAND 1976-2015			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	147,295	5,229	0.0355	0.9645	31.50	
80.5	134,251	5,854	0.0436	0.9564	30.38	
81.5	124,455	6,306	0.0507	0.9493	29.06	
82.5	114,605	6,129	0.0535	0.9465	27.58	
83.5	99,765	3,119	0.0313	0.9687	26.11	
84.5	83,815	2,997	0.0358	0.9642	25.29	
85.5	76,605	3,572	0.0466	0.9534	24.39	
86.5	69,097	1,731	0.0250	0.9750	23.25	
87.5	64,758	865	0.0134	0.9866	22.67	
88.5	66,613	540	0.0081	0.9919	22.37	
89.5	61,592	457	0.0074	0.9926	22.19	
90.5	53,533	17,083	0.3191	0.6809	22.02	
91.5	30,364	3,288	0.1083	0.8917	14.99	
92.5	25,864	1,630	0.0630	0.9370	13.37	
93.5	22,872	1,781	0.0779	0.9221	12.53	
94.5	21,091	4,059	0.1925	0.8075	11.55	
95.5	14,886	1,251	0.0841	0.9159	9.33	
96.5	11,793	584	0.0495	0.9505	8.54	
97.5	9,691	298	0.0307	0.9693	8.12	
98.5	9,105	184	0.0202	0.9798	7.87	
99.5	8,922	308	0.0345	0.9655	7.71	
100.5	8,578	411	0.0479	0.9521	7.45	
101.5	7,194	191	0.0265	0.9735	7.09	
102.5	7,051	130	0.0185	0.9815	6.90	
103.5	5,533	60	0.0108	0.9892	6.78	
104.5	5,473	98	0.0178	0.9822	6.70	
105.5	3,013		0.0000	1.0000	6.58	
106.5	2,960	37	0.0125	0.9875	6.58	
107.5	1,748	29	0.0165	0.9835	6.50	
108.5	1,719		0.0000	1.0000	6.39	
109.5	1,586	42	0.0267	0.9733	6.39	
110.5					6.22	

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1905-2015

EXPERIENCE BAND 1981-2015

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	688,395,877	542,260	0.0008	0.9992	100.00
0.5	669,212,225	1,198,907	0.0018	0.9982	99.92
1.5	648,968,656	2,207,430	0.0034	0.9966	99.74
2.5	627,517,627	2,316,964	0.0037	0.9963	99.40
3.5	609,900,153	2,372,717	0.0039	0.9961	99.04
4.5	594,200,472	2,362,113	0.0040	0.9960	98.65
5.5	582,396,162	2,553,511	0.0044	0.9956	98.26
6.5	562,477,048	2,590,122	0.0046	0.9954	97.83
7.5	543,019,857	2,562,331	0.0047	0.9953	97.38
8.5	523,620,964	2,283,982	0.0044	0.9956	96.92
9.5	501,463,771	1,941,815	0.0039	0.9961	96.49
10.5	480,425,163	1,811,030	0.0038	0.9962	96.12
11.5	457,681,082	1,780,290	0.0039	0.9961	95.76
12.5	432,681,533	1,704,342	0.0039	0.9961	95.39
13.5	408,990,101	2,020,634	0.0049	0.9951	95.01
14.5	386,058,077	1,590,604	0.0041	0.9959	94.54
15.5	363,367,593	1,537,152	0.0042	0.9958	94.15
16.5	337,367,298	1,481,259	0.0044	0.9956	93.75
17.5	313,320,573	1,247,938	0.0040	0.9960	93.34
18.5	288,386,285	1,253,541	0.0043	0.9957	92.97
19.5	265,215,598	1,120,376	0.0042	0.9958	92.57
20.5	244,766,074	998,169	0.0041	0.9959	92.17
21.5	222,582,263	944,564	0.0042	0.9958	91.80
22.5	200,626,816	1,165,841	0.0058	0.9942	91.41
23.5	180,781,649	883,816	0.0049	0.9951	90.88
24.5	161,703,056	1,014,244	0.0063	0.9937	90.43
25.5	143,778,265	831,854	0.0058	0.9942	89.87
26.5	128,004,451	709,855	0.0055	0.9945	89.35
27.5	116,042,901	674,775	0.0058	0.9942	88.85
28.5	105,368,368	590,960	0.0056	0.9944	88.33
29.5	95,219,974	528,938	0.0056	0.9944	87.84
30.5	84,657,724	501,044	0.0059	0.9941	87.35
31.5	75,867,986	493,394	0.0065	0.9935	86.83
32.5	68,947,897	439,817	0.0064	0.9936	86.27
33.5	62,734,300	415,526	0.0066	0.9934	85.72
34.5	55,080,825	439,451	0.0080	0.9920	85.15
35.5	47,479,873	416,417	0.0088	0.9912	84.47
36.5	41,296,661	409,003	0.0099	0.9901	83.73
37.5	36,210,560	280,506	0.0077	0.9923	82.90
38.5	32,667,662	251,837	0.0077	0.9923	82.26

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2015			EXPERIENCE BAND 1981-2015		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	29,709,946	194,129	0.0065	0.9935	81.63
40.5	27,330,959	247,672	0.0091	0.9909	81.09
41.5	24,686,150	184,621	0.0075	0.9925	80.36
42.5	21,789,063	125,974	0.0058	0.9942	79.76
43.5	19,099,971	101,311	0.0053	0.9947	79.30
44.5	16,687,356	93,191	0.0056	0.9944	78.87
45.5	14,562,140	69,215	0.0048	0.9952	78.43
46.5	12,496,763	64,199	0.0051	0.9949	78.06
47.5	10,682,225	69,133	0.0065	0.9935	77.66
48.5	8,990,124	52,655	0.0059	0.9941	77.16
49.5	7,339,391	34,146	0.0047	0.9953	76.71
50.5	5,923,365	40,529	0.0068	0.9932	76.35
51.5	4,737,163	28,844	0.0061	0.9939	75.83
52.5	3,766,989	21,572	0.0057	0.9943	75.37
53.5	2,973,090	25,547	0.0086	0.9914	74.93
54.5	2,232,171	21,145	0.0095	0.9905	74.29
55.5	1,616,062	16,832	0.0104	0.9896	73.59
56.5	1,369,455	34,170	0.0250	0.9750	72.82
57.5	1,319,335	29,062	0.0220	0.9780	71.00
58.5	1,118,216	30,889	0.0276	0.9724	69.44
59.5	893,889	29,028	0.0325	0.9675	67.52
60.5	867,366	31,128	0.0359	0.9641	65.33
61.5	836,293	29,542	0.0353	0.9647	62.98
62.5	725,042	27,505	0.0379	0.9621	60.76
63.5	701,253	28,590	0.0408	0.9592	58.45
64.5	626,583	23,899	0.0381	0.9619	56.07
65.5	598,491	42,722	0.0714	0.9286	53.93
66.5	541,915	22,547	0.0416	0.9584	50.08
67.5	517,412	23,303	0.0450	0.9550	48.00
68.5	473,654	21,434	0.0453	0.9547	45.84
69.5	438,819	26,494	0.0604	0.9396	43.76
70.5	2,067,355	203,366	0.0984	0.9016	41.12
71.5	1,845,153	30,801	0.0167	0.9833	37.08
72.5	1,809,677	21,566	0.0119	0.9881	36.46
73.5	1,765,431	44,206	0.0250	0.9750	36.02
74.5	1,705,713	40,533	0.0238	0.9762	35.12
75.5	246,198	13,597	0.0552	0.9448	34.29
76.5	213,666	16,861	0.0789	0.9211	32.39
77.5	181,699	10,614	0.0584	0.9416	29.84
78.5	161,862	8,019	0.0495	0.9505	28.09

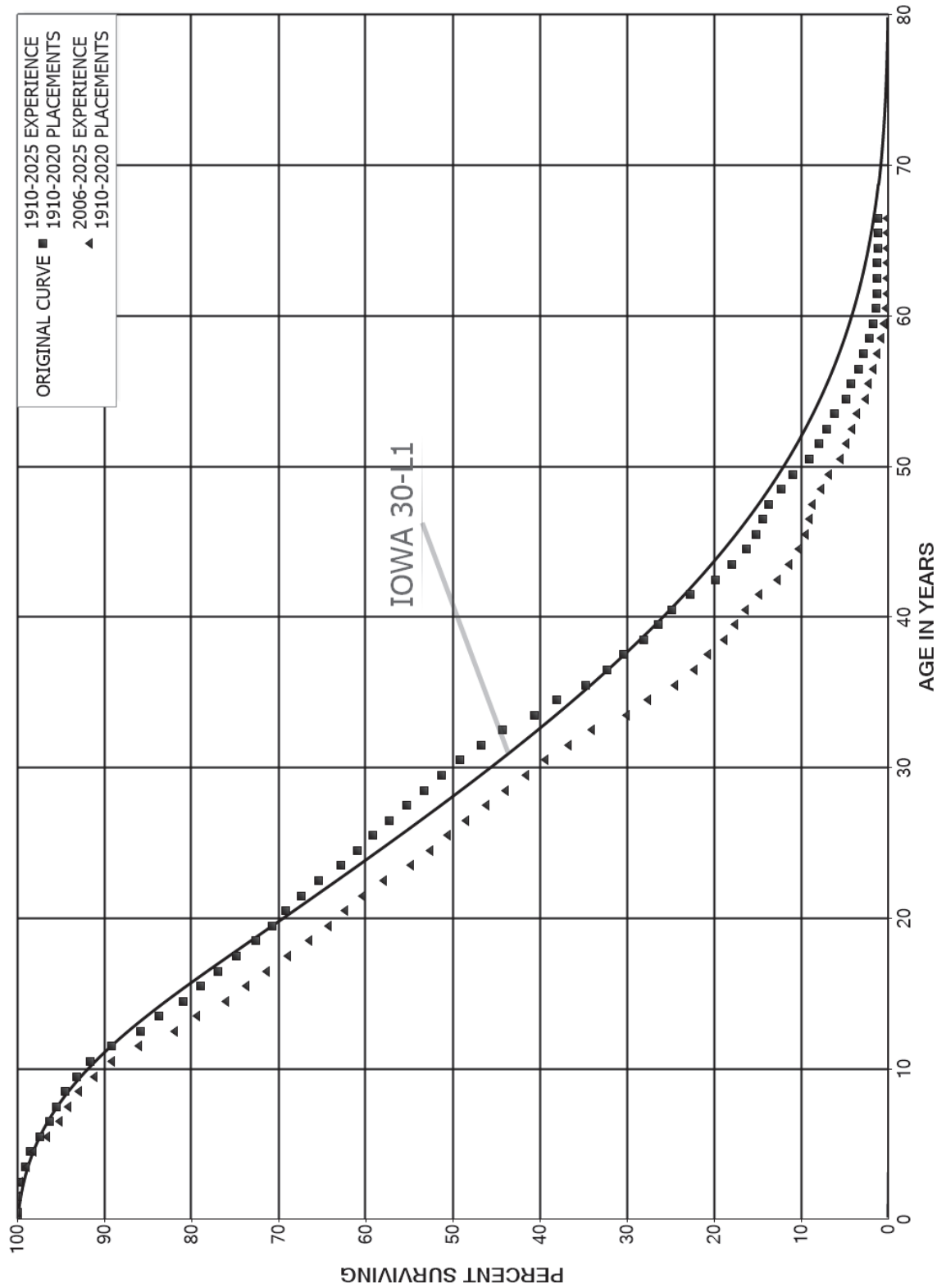
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1905-2015			EXPERIENCE BAND 1981-2015			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	147,295	5,229	0.0355	0.9645	26.70	
80.5	134,251	5,854	0.0436	0.9564	25.75	
81.5	124,455	6,306	0.0507	0.9493	24.63	
82.5	114,605	6,129	0.0535	0.9465	23.38	
83.5	99,765	3,119	0.0313	0.9687	22.13	
84.5	83,815	2,997	0.0358	0.9642	21.44	
85.5	76,605	3,572	0.0466	0.9534	20.67	
86.5	69,097	1,731	0.0250	0.9750	19.71	
87.5	64,758	865	0.0134	0.9866	19.22	
88.5	66,613	540	0.0081	0.9919	18.96	
89.5	61,592	457	0.0074	0.9926	18.81	
90.5	53,533	17,083	0.3191	0.6809	18.67	
91.5	30,364	3,288	0.1083	0.8917	12.71	
92.5	25,864	1,630	0.0630	0.9370	11.33	
93.5	22,872	1,781	0.0779	0.9221	10.62	
94.5	21,091	4,059	0.1925	0.8075	9.79	
95.5	14,886	1,251	0.0841	0.9159	7.91	
96.5	11,793	584	0.0495	0.9505	7.24	
97.5	9,691	298	0.0307	0.9693	6.88	
98.5	9,105	184	0.0202	0.9798	6.67	
99.5	8,922	308	0.0345	0.9655	6.54	
100.5	8,578	411	0.0479	0.9521	6.31	
101.5	7,194	191	0.0265	0.9735	6.01	
102.5	7,051	130	0.0185	0.9815	5.85	
103.5	5,533	60	0.0108	0.9892	5.74	
104.5	5,473	98	0.0178	0.9822	5.68	
105.5	3,013		0.0000	1.0000	5.58	
106.5	2,960	37	0.0125	0.9875	5.58	
107.5	1,748	29	0.0165	0.9835	5.51	
108.5	1,719		0.0000	1.0000	5.42	
109.5	1,586	42	0.0267	0.9733	5.42	
110.5					5.27	

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 381.00 METERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2020

EXPERIENCE BAND 1910-2025

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	129,656,780	12,947	0.0001	0.9999	100.00
0.5	130,107,674	74,491	0.0006	0.9994	99.99
1.5	129,407,790	338,439	0.0026	0.9974	99.93
2.5	129,073,722	714,233	0.0055	0.9945	99.67
3.5	128,368,538	775,492	0.0060	0.9940	99.12
4.5	127,606,659	1,524,784	0.0119	0.9881	98.52
5.5	116,603,111	1,256,489	0.0108	0.9892	97.34
6.5	105,412,248	883,852	0.0084	0.9916	96.29
7.5	100,238,615	1,009,529	0.0101	0.9899	95.49
8.5	95,129,758	1,320,688	0.0139	0.9861	94.53
9.5	91,047,194	1,511,599	0.0166	0.9834	93.21
10.5	86,832,817	2,397,148	0.0276	0.9724	91.67
11.5	81,767,162	3,008,439	0.0368	0.9632	89.14
12.5	76,396,221	1,859,284	0.0243	0.9757	85.86
13.5	71,268,250	2,425,904	0.0340	0.9660	83.77
14.5	66,995,391	1,662,067	0.0248	0.9752	80.91
15.5	63,608,031	1,607,946	0.0253	0.9747	78.91
16.5	61,526,360	1,678,067	0.0273	0.9727	76.91
17.5	54,019,880	1,563,911	0.0290	0.9710	74.82
18.5	47,759,546	1,277,444	0.0267	0.9733	72.65
19.5	41,082,738	916,497	0.0223	0.9777	70.71
20.5	39,315,626	991,421	0.0252	0.9748	69.13
21.5	36,008,018	1,090,430	0.0303	0.9697	67.39
22.5	32,897,850	1,286,550	0.0391	0.9609	65.34
23.5	30,285,267	884,596	0.0292	0.9708	62.79
24.5	28,232,829	809,698	0.0287	0.9713	60.96
25.5	26,641,102	845,545	0.0317	0.9683	59.21
26.5	24,947,116	869,361	0.0348	0.9652	57.33
27.5	23,269,568	840,700	0.0361	0.9639	55.33
28.5	21,605,863	838,809	0.0388	0.9612	53.33
29.5	20,064,845	826,616	0.0412	0.9588	51.26
30.5	18,627,244	898,900	0.0483	0.9517	49.15
31.5	17,240,136	928,311	0.0538	0.9462	46.78
32.5	15,890,286	1,305,185	0.0821	0.9179	44.26
33.5	14,221,778	893,529	0.0628	0.9372	40.62
34.5	13,194,073	1,145,536	0.0868	0.9132	38.07
35.5	12,002,890	857,036	0.0714	0.9286	34.77
36.5	11,151,965	636,901	0.0571	0.9429	32.28
37.5	10,527,155	810,853	0.0770	0.9230	30.44
38.5	9,725,563	571,324	0.0587	0.9413	28.09

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2020			EXPERIENCE BAND 1910-2025		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	9,173,722	568,050	0.0619	0.9381	26.44
40.5	8,629,465	738,892	0.0856	0.9144	24.81
41.5	7,927,725	988,768	0.1247	0.8753	22.68
42.5	6,972,753	678,781	0.0973	0.9027	19.85
43.5	6,329,707	574,841	0.0908	0.9092	17.92
44.5	5,777,101	410,194	0.0710	0.9290	16.29
45.5	5,388,273	283,068	0.0525	0.9475	15.14
46.5	5,123,936	211,924	0.0414	0.9586	14.34
47.5	4,931,021	508,584	0.1031	0.8969	13.75
48.5	4,440,033	507,076	0.1142	0.8858	12.33
49.5	3,948,188	670,353	0.1698	0.8302	10.92
50.5	3,289,445	404,500	0.1230	0.8770	9.07
51.5	2,896,689	330,351	0.1140	0.8860	7.95
52.5	2,573,595	332,346	0.1291	0.8709	7.05
53.5	2,244,394	478,990	0.2134	0.7866	6.14
54.5	1,768,110	217,865	0.1232	0.8768	4.83
55.5	1,552,599	306,789	0.1976	0.8024	4.23
56.5	1,251,899	224,046	0.1790	0.8210	3.40
57.5	1,029,501	218,282	0.2120	0.7880	2.79
58.5	812,694	184,994	0.2276	0.7724	2.20
59.5	628,655	129,959	0.2067	0.7933	1.70
60.5	499,303	9,013	0.0181	0.9819	1.35
61.5	490,366	949	0.0019	0.9981	1.32
62.5	489,544	14,822	0.0303	0.9697	1.32
63.5	474,780	21,808	0.0459	0.9541	1.28
64.5	452,972	19,759	0.0436	0.9564	1.22
65.5	433,248	1,015	0.0023	0.9977	1.17
66.5	432,233	454	0.0011	0.9989	1.16
67.5	431,779	706	0.0016	0.9984	1.16
68.5	431,149	396	0.0009	0.9991	1.16
69.5	430,788	66	0.0002	0.9998	1.16
70.5	430,722	12,713	0.0295	0.9705	1.16
71.5	418,009	72	0.0002	0.9998	1.13
72.5	404,350	181	0.0004	0.9996	1.13
73.5	404,169	3,697	0.0091	0.9909	1.13
74.5	400,472	1,767	0.0044	0.9956	1.11
75.5	128,598	686	0.0053	0.9947	1.11
76.5	127,912	649	0.0051	0.9949	1.10
77.5	127,263	37	0.0003	0.9997	1.10
78.5	127,226	1	0.0000	1.0000	1.10

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2020			EXPERIENCE BAND 1910-2025			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	127,225	155	0.0012	0.9988	1.10	
80.5	127,070	2,361	0.0186	0.9814	1.10	
81.5	124,709	34	0.0003	0.9997	1.08	
82.5	124,675		0.0000	1.0000	1.08	
83.5	124,675	2,534	0.0203	0.9797	1.08	
84.5	122,141		0.0000	1.0000	1.05	
85.5	122,141		0.0000	1.0000	1.05	
86.5	122,141		0.0000	1.0000	1.05	
87.5	122,141		0.0000	1.0000	1.05	
88.5	122,141		0.0000	1.0000	1.05	
89.5	122,141	87	0.0007	0.9993	1.05	
90.5	122,054	148	0.0012	0.9988	1.05	
91.5	121,906	320	0.0026	0.9974	1.05	
92.5	121,585	1,451	0.0119	0.9881	1.05	
93.5	120,134	1,246	0.0104	0.9896	1.04	
94.5	118,888	1,739	0.0146	0.9854	1.03	
95.5	117,149	3,869	0.0330	0.9670	1.01	
96.5	113,280	9,143	0.0807	0.9193	0.98	
97.5	104,137	6,898	0.0662	0.9338	0.90	
98.5	97,239	2,496	0.0257	0.9743	0.84	
99.5	94,743	2,878	0.0304	0.9696	0.82	
100.5	91,864	1,720	0.0187	0.9813	0.79	
101.5	90,145	1,660	0.0184	0.9816	0.78	
102.5	88,485	2,410	0.0272	0.9728	0.76	
103.5	86,075	2,640	0.0307	0.9693	0.74	
104.5	83,436	1,770	0.0212	0.9788	0.72	
105.5	81,666	1,380	0.0169	0.9831	0.70	
106.5	80,286	2,030	0.0253	0.9747	0.69	
107.5	78,256	1,800	0.0230	0.9770	0.68	
108.5	76,456	1,630	0.0213	0.9787	0.66	
109.5	74,826	6,630	0.0886	0.9114	0.65	
110.5	68,196	68,196	1.0000		0.59	
111.5						

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2020

EXPERIENCE BAND 2006-2025

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	79,855,152		0.0000	1.0000	100.00
0.5	83,072,066	57,078	0.0007	0.9993	100.00
1.5	87,258,729	319,752	0.0037	0.9963	99.93
2.5	90,742,216	688,187	0.0076	0.9924	99.57
3.5	92,116,177	737,052	0.0080	0.9920	98.81
4.5	93,409,568	1,456,812	0.0156	0.9844	98.02
5.5	84,070,750	1,221,275	0.0145	0.9855	96.49
6.5	74,648,024	817,159	0.0109	0.9891	95.09
7.5	71,091,569	944,086	0.0133	0.9867	94.05
8.5	68,003,744	1,251,988	0.0184	0.9816	92.80
9.5	65,495,028	1,422,686	0.0217	0.9783	91.09
10.5	62,785,305	2,262,736	0.0360	0.9640	89.11
11.5	58,987,484	2,826,188	0.0479	0.9521	85.90
12.5	55,047,743	1,647,336	0.0299	0.9701	81.78
13.5	51,301,420	2,219,901	0.0433	0.9567	79.34
14.5	48,273,814	1,474,865	0.0306	0.9694	75.90
15.5	46,233,380	1,453,302	0.0314	0.9686	73.59
16.5	45,099,389	1,519,334	0.0337	0.9663	71.27
17.5	38,325,752	1,379,229	0.0360	0.9640	68.87
18.5	32,575,706	1,097,975	0.0337	0.9663	66.39
19.5	26,890,553	774,223	0.0288	0.9712	64.15
20.5	25,877,722	827,880	0.0320	0.9680	62.31
21.5	23,107,734	944,848	0.0409	0.9591	60.31
22.5	20,364,426	1,116,834	0.0548	0.9452	57.85
23.5	18,640,476	745,782	0.0400	0.9600	54.68
24.5	17,656,277	664,428	0.0376	0.9624	52.49
25.5	16,767,664	708,523	0.0423	0.9577	50.51
26.5	15,829,450	739,256	0.0467	0.9533	48.38
27.5	14,662,750	714,989	0.0488	0.9512	46.12
28.5	13,534,289	719,708	0.0532	0.9468	43.87
29.5	12,444,686	690,004	0.0554	0.9446	41.54
30.5	11,280,902	757,223	0.0671	0.9329	39.23
31.5	10,669,655	766,767	0.0719	0.9281	36.60
32.5	9,953,537	1,168,700	0.1174	0.8826	33.97
33.5	9,190,199	751,339	0.0818	0.9182	29.98
34.5	8,836,029	1,012,935	0.1146	0.8854	27.53
35.5	8,178,913	735,777	0.0900	0.9100	24.37
36.5	7,760,184	531,489	0.0685	0.9315	22.18
37.5	7,580,734	722,956	0.0954	0.9046	20.66
38.5	7,247,158	478,100	0.0660	0.9340	18.69

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2020			EXPERIENCE BAND 2006-2025		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	7,075,748	490,939	0.0694	0.9306	17.46
40.5	6,958,728	664,275	0.0955	0.9045	16.25
41.5	6,614,501	932,339	0.1410	0.8590	14.70
42.5	5,973,279	631,173	0.1057	0.8943	12.63
43.5	5,575,289	542,090	0.0972	0.9028	11.29
44.5	5,215,158	383,607	0.0736	0.9264	10.19
45.5	4,844,934	261,470	0.0540	0.9460	9.44
46.5	4,594,658	190,006	0.0414	0.9586	8.93
47.5	4,424,148	488,312	0.1104	0.8896	8.56
48.5	3,957,308	487,790	0.1233	0.8767	7.62
49.5	3,495,066	653,949	0.1871	0.8129	6.68
50.5	2,841,932	388,248	0.1366	0.8634	5.43
51.5	2,454,011	318,719	0.1299	0.8701	4.69
52.5	2,135,857	325,802	0.1525	0.8475	4.08
53.5	1,810,436	474,053	0.2618	0.7382	3.46
54.5	1,336,450	213,908	0.1601	0.8399	2.55
55.5	1,122,702	300,266	0.2674	0.7326	2.14
56.5	822,436	222,789	0.2709	0.7291	1.57
57.5	599,820	217,508	0.3626	0.6374	1.14
58.5	383,047	184,489	0.4816	0.5184	0.73
59.5	200,325	129,578	0.6468	0.3532	0.38
60.5	71,427	8,861	0.1241	0.8759	0.13
61.5	63,215	783	0.0124	0.9876	0.12
62.5	62,614	14,680	0.2345	0.7655	0.12
63.5	48,039	21,733	0.4524	0.5476	0.09
64.5	26,461	19,700	0.7445	0.2555	0.05
65.5	9,122	960	0.1052	0.8948	0.01
66.5	8,196	377	0.0460	0.9540	0.01
67.5	7,819	620	0.0793	0.9207	0.01
68.5	7,233	381	0.0527	0.9473	0.01
69.5	6,852	66	0.0096	0.9904	0.01
70.5	6,786	160	0.0236	0.9764	0.01
71.5	6,626		0.0000	1.0000	0.01
72.5	6,626	173	0.0261	0.9739	0.01
73.5	6,453	735	0.1139	0.8861	0.01
74.5	5,805	1,767	0.3044	0.6956	0.01
75.5	4,038	680	0.1684	0.8316	0.01
76.5	3,698	649	0.1755	0.8245	0.00
77.5	3,049	37	0.0121	0.9879	0.00
78.5	3,465	1	0.0003	0.9997	0.00

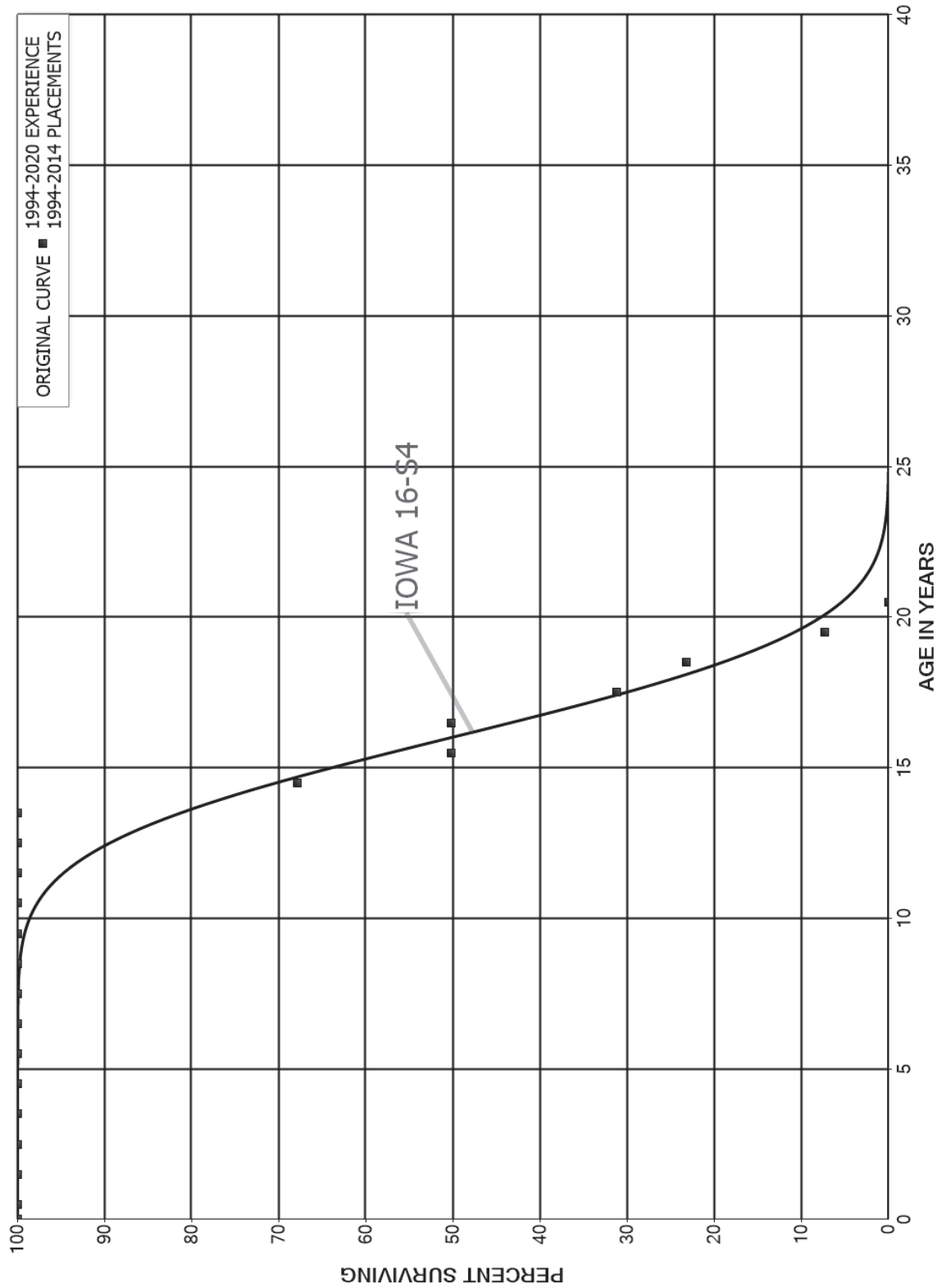
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2020			EXPERIENCE BAND 2006-2025			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	4,174	155	0.0371	0.9629	0.00	
80.5	4,798	2,361	0.4921	0.5079	0.00	
81.5	2,905	34	0.0117	0.9883	0.00	
82.5	3,287		0.0000	1.0000	0.00	
83.5	3,287	34	0.0103	0.9897	0.00	
84.5	3,253		0.0000	1.0000	0.00	
85.5	3,292		0.0000	1.0000	0.00	
86.5	3,292		0.0000	1.0000	0.00	
87.5	3,313		0.0000	1.0000	0.00	
88.5	3,313		0.0000	1.0000	0.00	
89.5	3,313	87	0.0263	0.9737	0.00	
90.5	3,283	148	0.0452	0.9548	0.00	
91.5	3,164	320	0.1013	0.8987	0.00	
92.5	2,843	1,451	0.5104	0.4896	0.00	
93.5	1,392	1,146	0.8236	0.1764	0.00	
94.5	246	139	0.5643	0.4357	0.00	
95.5	117,149	3,869	0.0330	0.9670	0.00	
96.5	113,280	9,143	0.0807	0.9193	0.00	
97.5	104,137	6,898	0.0662	0.9338	0.00	
98.5	97,239	2,496	0.0257	0.9743	0.00	
99.5	94,743	2,878	0.0304	0.9696	0.00	
100.5	91,864	1,720	0.0187	0.9813	0.00	
101.5	90,145	1,660	0.0184	0.9816	0.00	
102.5	88,485	2,410	0.0272	0.9728	0.00	
103.5	86,075	2,640	0.0307	0.9693	0.00	
104.5	83,436	1,770	0.0212	0.9788	0.00	
105.5	81,666	1,380	0.0169	0.9831	0.00	
106.5	80,286	2,030	0.0253	0.9747	0.00	
107.5	78,256	1,800	0.0230	0.9770	0.00	
108.5	76,456	1,630	0.0213	0.9787	0.00	
109.5	74,826	6,630	0.0886	0.9114	0.00	
110.5	68,196	68,196	1.0000		0.00	
111.5						

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 381.10 METERS - ELECTRIC
 ORIGINAL AND SMOOTH SURVIVOR CURVES



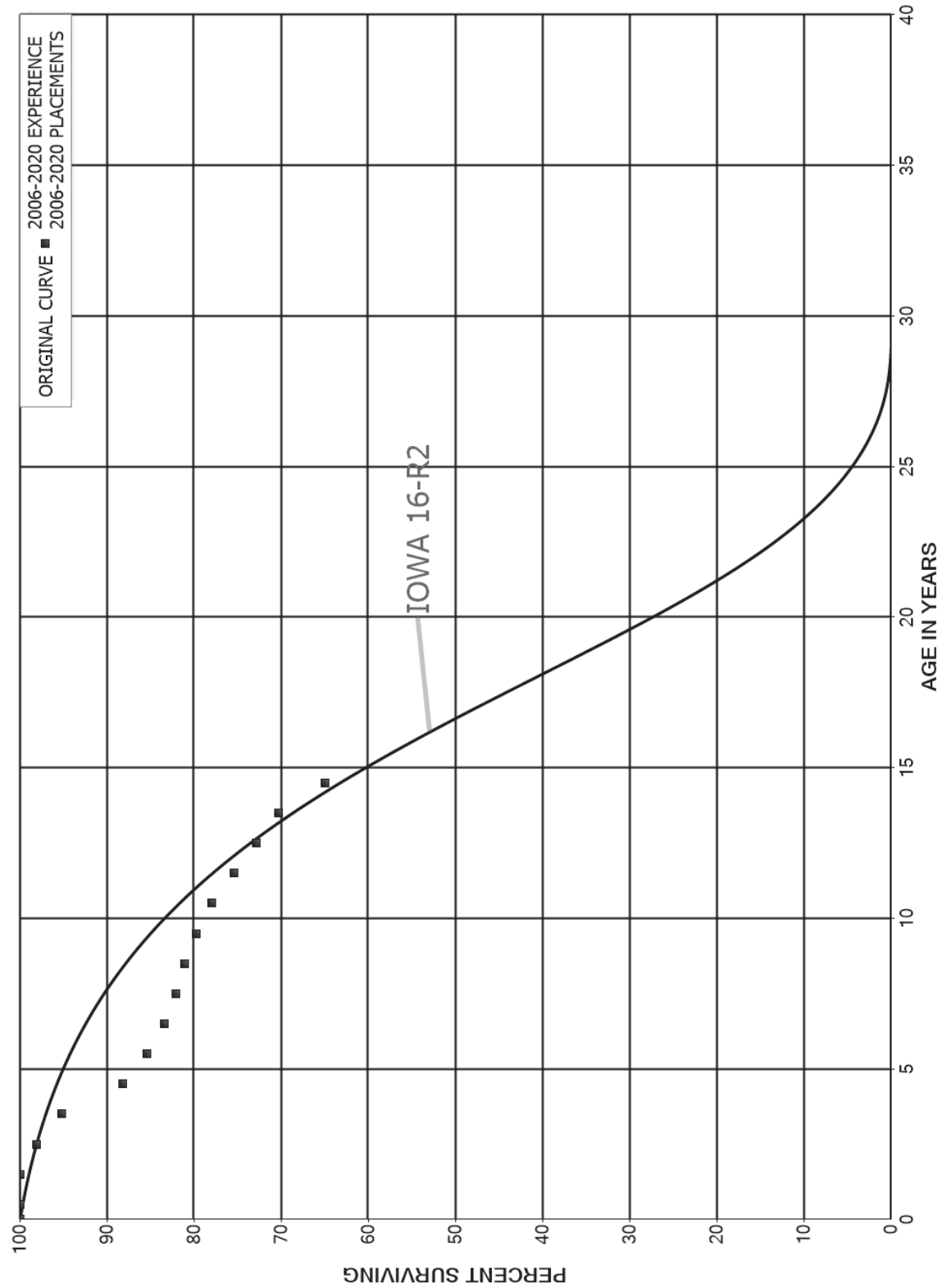
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.10 METERS - ELECTRIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1994-2014			EXPERIENCE BAND 1994-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,231,438		0.0000	1.0000	100.00
0.5	2,231,438		0.0000	1.0000	100.00
1.5	3,640,040		0.0000	1.0000	100.00
2.5	2,203,945		0.0000	1.0000	100.00
3.5	2,203,945		0.0000	1.0000	100.00
4.5	2,203,945		0.0000	1.0000	100.00
5.5	2,203,945		0.0000	1.0000	100.00
6.5	2,176,715		0.0000	1.0000	100.00
7.5	550,226		0.0000	1.0000	100.00
8.5	507,007		0.0000	1.0000	100.00
9.5	507,007		0.0000	1.0000	100.00
10.5	507,007		0.0000	1.0000	100.00
11.5	507,007		0.0000	1.0000	100.00
12.5	507,007		0.0000	1.0000	100.00
13.5	507,007	162,981	0.3215	0.6785	100.00
14.5	344,026	89,373	0.2598	0.7402	67.85
15.5	254,653		0.0000	1.0000	50.23
16.5	254,653	96,599	0.3793	0.6207	50.23
17.5	158,054	40,588	0.2568	0.7432	31.17
18.5	117,466	80,578	0.6860	0.3140	23.17
19.5	36,888	36,888	1.0000		7.28
20.5					

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 381.20 METERS - ERT
ORIGINAL AND SMOOTH SURVIVOR CURVES



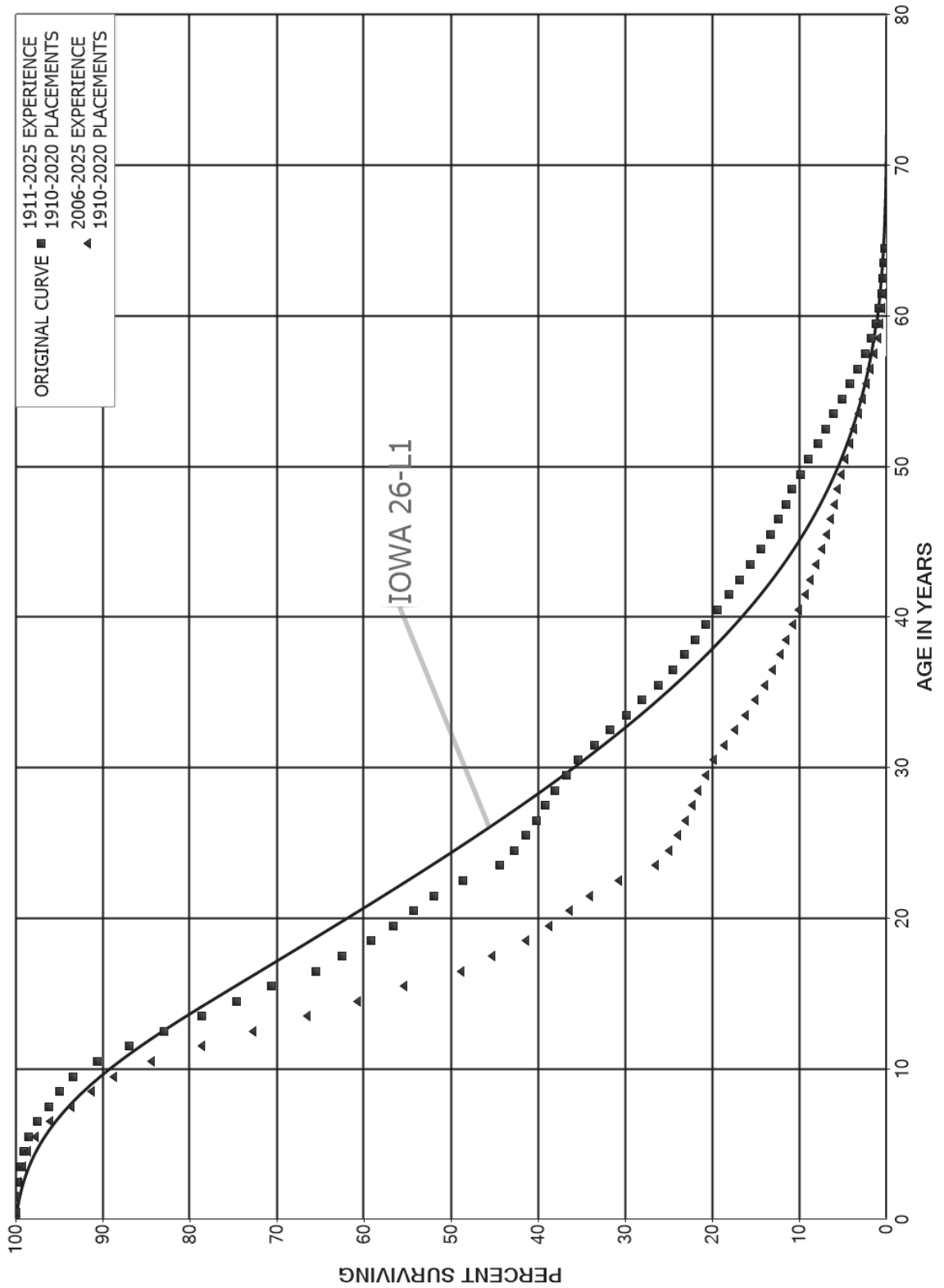
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.20 METERS - ERT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2006-2020			EXPERIENCE BAND 2006-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	55,944,456		0.0000	1.0000	100.00
0.5	52,425,753	18,697	0.0004	0.9996	100.00
1.5	50,834,445	961,765	0.0189	0.9811	99.96
2.5	47,252,307	1,418,820	0.0300	0.9700	98.07
3.5	44,570,521	3,254,391	0.0730	0.9270	95.13
4.5	40,211,796	1,267,638	0.0315	0.9685	88.18
5.5	38,944,158	927,329	0.0238	0.9762	85.40
6.5	37,806,829	567,370	0.0150	0.9850	83.37
7.5	34,483,243	426,461	0.0124	0.9876	82.12
8.5	33,410,345	560,236	0.0168	0.9832	81.10
9.5	32,342,753	724,231	0.0224	0.9776	79.74
10.5	31,033,358	1,040,661	0.0335	0.9665	77.96
11.5	20,539,855	678,549	0.0330	0.9670	75.34
12.5	13,236,878	472,569	0.0357	0.9643	72.85
13.5	9,715,003	739,030	0.0761	0.9239	70.25
14.5					64.91

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 382.00 METER INSTALLATIONS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2020

EXPERIENCE BAND 1911-2025

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	116,960,573	27,952	0.0002	0.9998	100.00
0.5	114,678,624	85,034	0.0007	0.9993	99.98
1.5	114,200,240	243,247	0.0021	0.9979	99.90
2.5	113,980,455	311,357	0.0027	0.9973	99.69
3.5	113,696,725	400,101	0.0035	0.9965	99.42
4.5	113,349,957	675,039	0.0060	0.9940	99.07
5.5	107,994,158	1,028,688	0.0095	0.9905	98.48
6.5	102,483,298	1,408,447	0.0137	0.9863	97.54
7.5	97,421,583	1,314,972	0.0135	0.9865	96.20
8.5	93,366,381	1,523,423	0.0163	0.9837	94.90
9.5	89,617,152	2,580,628	0.0288	0.9712	93.35
10.5	85,016,468	3,490,371	0.0411	0.9589	90.66
11.5	79,608,574	3,616,881	0.0454	0.9546	86.94
12.5	74,346,678	3,892,962	0.0524	0.9476	82.99
13.5	68,168,055	3,530,000	0.0518	0.9482	78.65
14.5	62,957,952	3,317,642	0.0527	0.9473	74.57
15.5	58,120,974	4,196,724	0.0722	0.9278	70.64
16.5	53,567,380	2,463,477	0.0460	0.9540	65.54
17.5	51,137,688	2,783,544	0.0544	0.9456	62.53
18.5	46,666,345	2,002,096	0.0429	0.9571	59.12
19.5	44,672,544	1,810,230	0.0405	0.9595	56.59
20.5	41,989,446	1,848,015	0.0440	0.9560	54.29
21.5	36,930,903	2,338,586	0.0633	0.9367	51.91
22.5	34,597,680	2,971,581	0.0859	0.9141	48.62
23.5	31,445,083	1,228,096	0.0391	0.9609	44.44
24.5	28,526,435	903,565	0.0317	0.9683	42.71
25.5	26,324,983	724,700	0.0275	0.9725	41.35
26.5	25,082,955	675,893	0.0269	0.9731	40.22
27.5	24,424,665	688,927	0.0282	0.9718	39.13
28.5	23,524,109	815,529	0.0347	0.9653	38.03
29.5	22,723,797	840,046	0.0370	0.9630	36.71
30.5	21,487,770	1,114,903	0.0519	0.9481	35.35
31.5	20,381,264	1,093,438	0.0536	0.9464	33.52
32.5	19,295,728	1,154,978	0.0599	0.9401	31.72
33.5	17,348,569	1,010,962	0.0583	0.9417	29.82
34.5	15,928,834	1,066,381	0.0669	0.9331	28.08
35.5	13,632,260	857,726	0.0629	0.9371	26.20
36.5	11,834,818	656,748	0.0555	0.9445	24.56
37.5	10,627,461	572,749	0.0539	0.9461	23.19
38.5	10,059,864	571,337	0.0568	0.9432	21.94

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2020			EXPERIENCE BAND 1911-2025			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	8,909,276	556,913	0.0625	0.9375	20.70	
40.5	8,361,765	575,972	0.0689	0.9311	19.40	
41.5	7,798,711	512,398	0.0657	0.9343	18.07	
42.5	7,101,066	545,470	0.0768	0.9232	16.88	
43.5	6,367,430	503,704	0.0791	0.9209	15.58	
44.5	5,527,425	417,939	0.0756	0.9244	14.35	
45.5	4,815,393	319,501	0.0664	0.9336	13.26	
46.5	4,495,107	299,435	0.0666	0.9334	12.38	
47.5	4,024,584	249,783	0.0621	0.9379	11.56	
48.5	3,786,909	344,235	0.0909	0.9091	10.84	
49.5	3,384,069	321,013	0.0949	0.9051	9.86	
50.5	3,069,825	360,237	0.1173	0.8827	8.92	
51.5	2,661,797	299,750	0.1126	0.8874	7.87	
52.5	2,308,274	312,717	0.1355	0.8645	6.99	
53.5	1,892,957	308,560	0.1630	0.8370	6.04	
54.5	1,565,806	279,610	0.1786	0.8214	5.06	
55.5	1,267,970	258,250	0.2037	0.7963	4.15	
56.5	1,010,821	272,786	0.2699	0.7301	3.31	
57.5	730,900	213,666	0.2923	0.7077	2.41	
58.5	517,754	153,314	0.2961	0.7039	1.71	
59.5	364,664	114,397	0.3137	0.6863	1.20	
60.5	250,439	82,158	0.3281	0.6719	0.83	
61.5	168,449	53,619	0.3183	0.6817	0.55	
62.5	114,921	28,298	0.2462	0.7538	0.38	
63.5	86,644	32,955	0.3804	0.6196	0.29	
64.5	53,689	24,050	0.4480	0.5520	0.18	
65.5	29,645	11,675	0.3938	0.6062	0.10	
66.5	17,970	29	0.0016	0.9984	0.06	
67.5	17,941	66	0.0037	0.9963	0.06	
68.5	17,889	14	0.0008	0.9992	0.06	
69.5	17,882		0.0000	1.0000	0.06	
70.5	17,882		0.0000	1.0000	0.06	
71.5	17,882		0.0000	1.0000	0.06	
72.5	17,882	7	0.0004	0.9996	0.06	
73.5	17,875		0.0000	1.0000	0.06	
74.5	17,875		0.0000	1.0000	0.06	
75.5	17,875		0.0000	1.0000	0.06	
76.5	17,875		0.0000	1.0000	0.06	
77.5	17,875		0.0000	1.0000	0.06	
78.5	17,875		0.0000	1.0000	0.06	

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 382.00 METER INSTALLATIONS
 ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2020			EXPERIENCE BAND 1911-2025		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	17,875		0.0000	1.0000	0.06
80.5	17,875		0.0000	1.0000	0.06
81.5	17,875		0.0000	1.0000	0.06
82.5	17,875		0.0000	1.0000	0.06
83.5	17,875		0.0000	1.0000	0.06
84.5	17,875		0.0000	1.0000	0.06
85.5	17,875		0.0000	1.0000	0.06
86.5	17,875		0.0000	1.0000	0.06
87.5	17,875		0.0000	1.0000	0.06
88.5	17,875		0.0000	1.0000	0.06
89.5	17,875	7	0.0004	0.9996	0.06
90.5	17,868		0.0000	1.0000	0.06
91.5	17,868		0.0000	1.0000	0.06
92.5	17,868		0.0000	1.0000	0.06
93.5	17,868	69	0.0039	0.9961	0.06
94.5	17,799	188	0.0105	0.9895	0.06
95.5	17,611	808	0.0459	0.9541	0.06
96.5	16,804	1,136	0.0676	0.9324	0.06
97.5	15,668		0.0000	1.0000	0.05
98.5	15,668	850	0.0542	0.9458	0.05
99.5	14,818	13,591	0.9172	0.0828	0.05
100.5	1,227	830	0.6762	0.3238	0.00
101.5	398	398	1.0000		0.00
102.5					

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2020

EXPERIENCE BAND 2006-2025

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	41,613,127	15,911	0.0004	0.9996	100.00
0.5	44,345,096	30,322	0.0007	0.9993	99.96
1.5	49,261,879	158,319	0.0032	0.9968	99.89
2.5	52,680,444	259,785	0.0049	0.9951	99.57
3.5	55,206,074	313,405	0.0057	0.9943	99.08
4.5	57,835,198	538,278	0.0093	0.9907	98.52
5.5	55,219,697	964,331	0.0175	0.9825	97.60
6.5	52,544,186	1,322,361	0.0252	0.9748	95.90
7.5	50,731,036	1,229,795	0.0242	0.9758	93.48
8.5	50,156,438	1,436,057	0.0286	0.9714	91.22
9.5	49,886,340	2,452,135	0.0492	0.9508	88.61
10.5	47,974,468	3,284,026	0.0685	0.9315	84.25
11.5	45,214,276	3,393,728	0.0751	0.9249	78.48
12.5	42,401,898	3,648,474	0.0860	0.9140	72.59
13.5	38,747,307	3,317,261	0.0856	0.9144	66.35
14.5	35,981,155	3,162,968	0.0879	0.9121	60.67
15.5	33,726,118	4,046,610	0.1200	0.8800	55.33
16.5	31,401,373	2,295,147	0.0731	0.9269	48.69
17.5	30,613,598	2,589,623	0.0846	0.9154	45.14
18.5	27,236,633	1,807,292	0.0664	0.9336	41.32
19.5	27,180,391	1,637,226	0.0602	0.9398	38.58
20.5	25,683,683	1,629,727	0.0635	0.9365	36.25
21.5	21,521,340	2,139,962	0.0994	0.9006	33.95
22.5	19,978,144	2,763,574	0.1383	0.8617	30.58
23.5	17,990,004	1,024,558	0.0570	0.9430	26.35
24.5	16,775,920	715,762	0.0427	0.9573	24.85
25.5	16,081,045	537,736	0.0334	0.9666	23.79
26.5	15,847,011	531,344	0.0335	0.9665	22.99
27.5	16,234,398	533,286	0.0328	0.9672	22.22
28.5	15,863,023	654,559	0.0413	0.9587	21.49
29.5	15,567,978	671,905	0.0432	0.9568	20.60
30.5	14,602,320	901,879	0.0618	0.9382	19.71
31.5	14,340,833	924,039	0.0644	0.9356	18.50
32.5	13,986,787	1,002,265	0.0717	0.9283	17.30
33.5	13,039,309	857,164	0.0657	0.9343	16.06
34.5	12,234,195	930,996	0.0761	0.9239	15.01
35.5	10,418,465	732,335	0.0703	0.9297	13.87
36.5	8,923,288	565,476	0.0634	0.9366	12.89
37.5	8,244,167	493,022	0.0598	0.9402	12.07
38.5	8,182,509	504,699	0.0617	0.9383	11.35

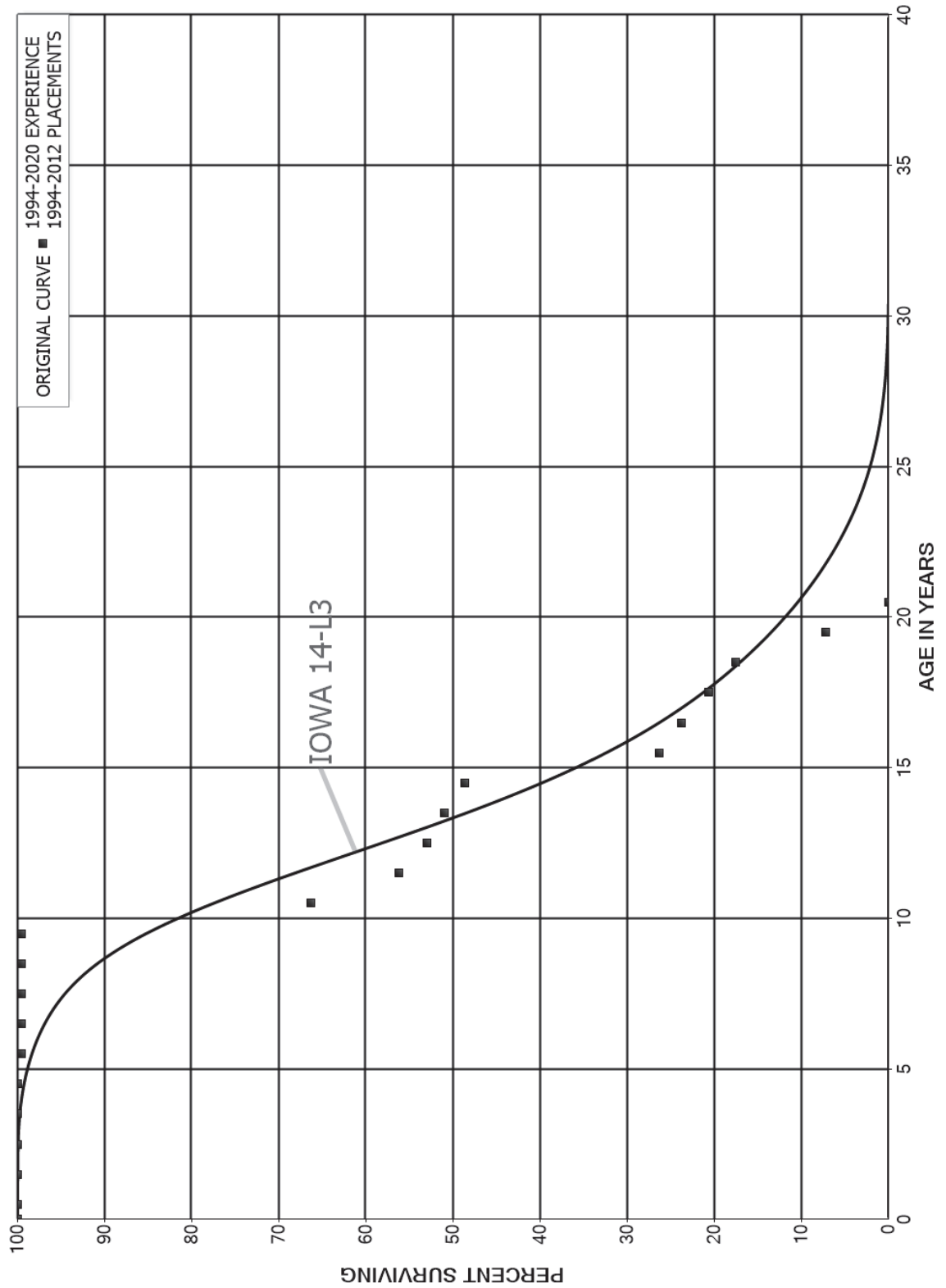
NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 382.00 METER INSTALLATIONS
 ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2020			EXPERIENCE BAND 2006-2025		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	7,436,490	502,681	0.0676	0.9324	10.65
40.5	7,301,209	529,229	0.0725	0.9275	9.93
41.5	7,060,982	483,149	0.0684	0.9316	9.21
42.5	6,627,309	521,943	0.0788	0.9212	8.58
43.5	6,109,204	486,724	0.0797	0.9203	7.91
44.5	5,328,610	404,593	0.0759	0.9241	7.28
45.5	4,684,429	306,333	0.0654	0.9346	6.72
46.5	4,384,109	285,024	0.0650	0.9350	6.28
47.5	3,932,908	235,986	0.0600	0.9400	5.88
48.5	3,734,363	330,102	0.0884	0.9116	5.52
49.5	3,347,264	309,591	0.0925	0.9075	5.03
50.5	3,038,511	348,960	0.1148	0.8852	4.57
51.5	2,634,066	291,639	0.1107	0.8893	4.04
52.5	2,283,738	307,660	0.1347	0.8653	3.60
53.5	1,870,809	305,021	0.1630	0.8370	3.11
54.5	1,545,222	277,134	0.1793	0.8207	2.60
55.5	1,248,513	256,478	0.2054	0.7946	2.14
56.5	992,030	271,844	0.2740	0.7260	1.70
57.5	712,372	213,081	0.2991	0.7009	1.23
58.5	499,291	152,971	0.3064	0.6936	0.86
59.5	346,320	114,126	0.3295	0.6705	0.60
60.5	232,194	82,030	0.3533	0.6467	0.40
61.5	150,164	53,467	0.3561	0.6439	0.26
62.5	96,698	28,185	0.2915	0.7085	0.17
63.5	68,513	32,887	0.4800	0.5200	0.12
64.5	35,626	23,964	0.6727	0.3273	0.06
65.5	11,661	11,661	1.0000		0.02
66.5					
67.5					
68.5					
69.5					
70.5					
71.5					
72.5					
73.5					
74.5					
75.5					
76.5					
77.5					
78.5					

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 382.00 METER INSTALLATIONS
 ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2020			EXPERIENCE BAND 2006-2025		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5					
82.5		7	0.0000		
83.5		7	0.0000		
84.5		7	0.0000		
85.5		7	0.0000		
86.5		7	0.0000		
87.5		7	0.0000		
88.5		7	0.0000		
89.5		7	7	1.0000	
90.5		7		0.0000	
91.5		7		0.0000	
92.5		7		0.0000	
93.5		7		0.0000	
94.5		7		0.0000	
95.5	17,611	808	0.0459		
96.5	16,804	1,136	0.0676		
97.5	15,668		0.0000		
98.5	15,668	850	0.0542		
99.5	14,818	13,591	0.9172		
100.5	1,227	830	0.6762		
101.5	398	398	1.0000		
102.5					

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 382.10 METER INSTALLATIONS - ELECTRIC
 ORIGINAL AND SMOOTH SURVIVOR CURVES



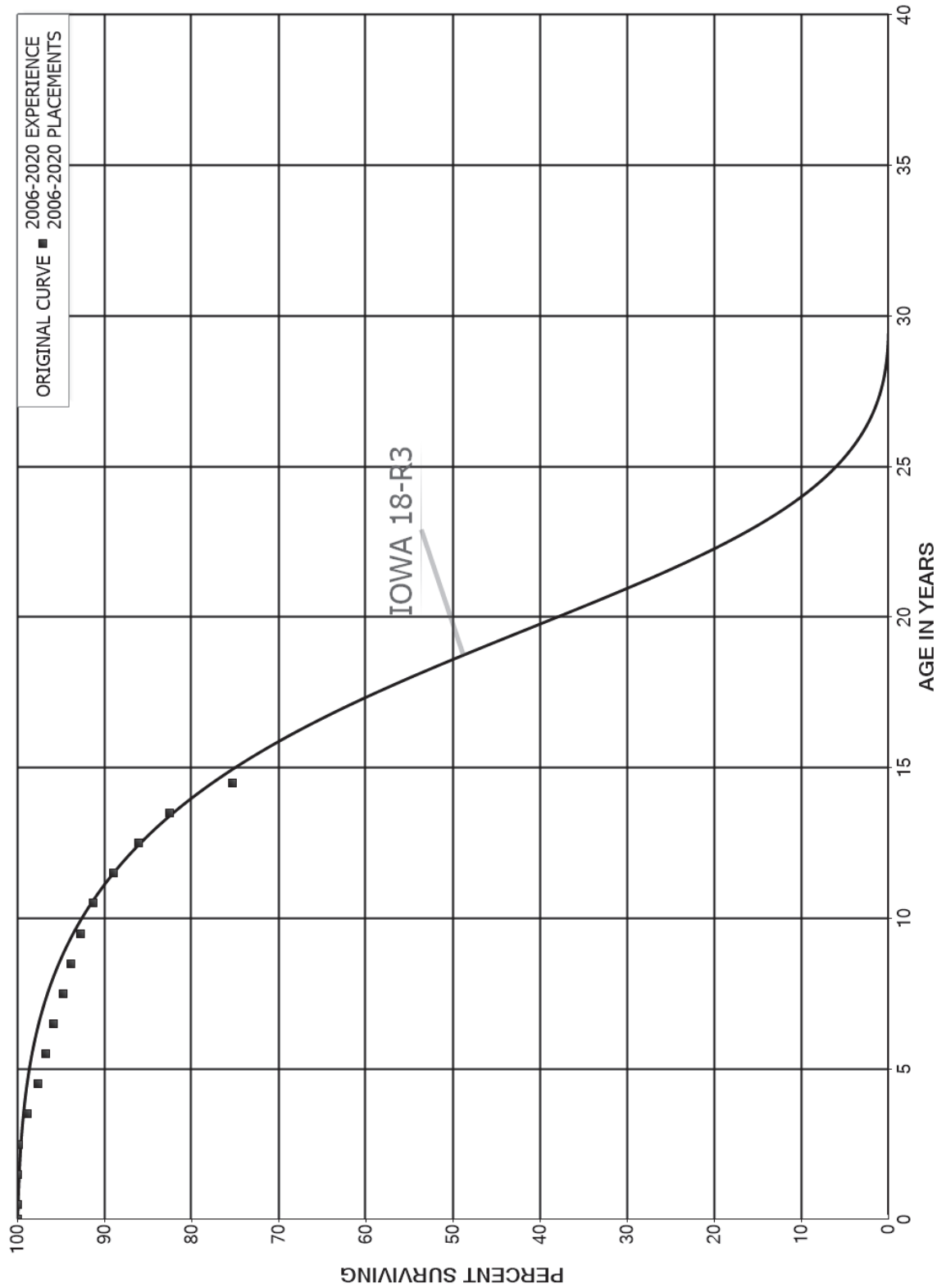
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.10 METER INSTALLATIONS - ELECTRIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1994-2012			EXPERIENCE BAND 1994-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	999,397		0.0000	1.0000	100.00
0.5	999,397		0.0000	1.0000	100.00
1.5	999,397		0.0000	1.0000	100.00
2.5	999,397		0.0000	1.0000	100.00
3.5	999,397		0.0000	1.0000	100.00
4.5	999,397	4,559	0.0046	0.9954	100.00
5.5	994,838		0.0000	1.0000	99.54
6.5	994,838		0.0000	1.0000	99.54
7.5	994,838		0.0000	1.0000	99.54
8.5	513,818		0.0000	1.0000	99.54
9.5	513,818	171,671	0.3341	0.6659	99.54
10.5	342,147	52,429	0.1532	0.8468	66.29
11.5	289,718	16,259	0.0561	0.9439	56.13
12.5	273,459	10,720	0.0392	0.9608	52.98
13.5	262,739	11,880	0.0452	0.9548	50.90
14.5	250,859	114,955	0.4582	0.5418	48.60
15.5	135,904	13,170	0.0969	0.9031	26.33
16.5	122,734	16,477	0.1342	0.8658	23.78
17.5	106,257	15,824	0.1489	0.8511	20.59
18.5	90,433	53,374	0.5902	0.4098	17.52
19.5	37,059	37,059	1.0000		7.18
20.5					

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 382.20 METER INSTALLATIONS - ERT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



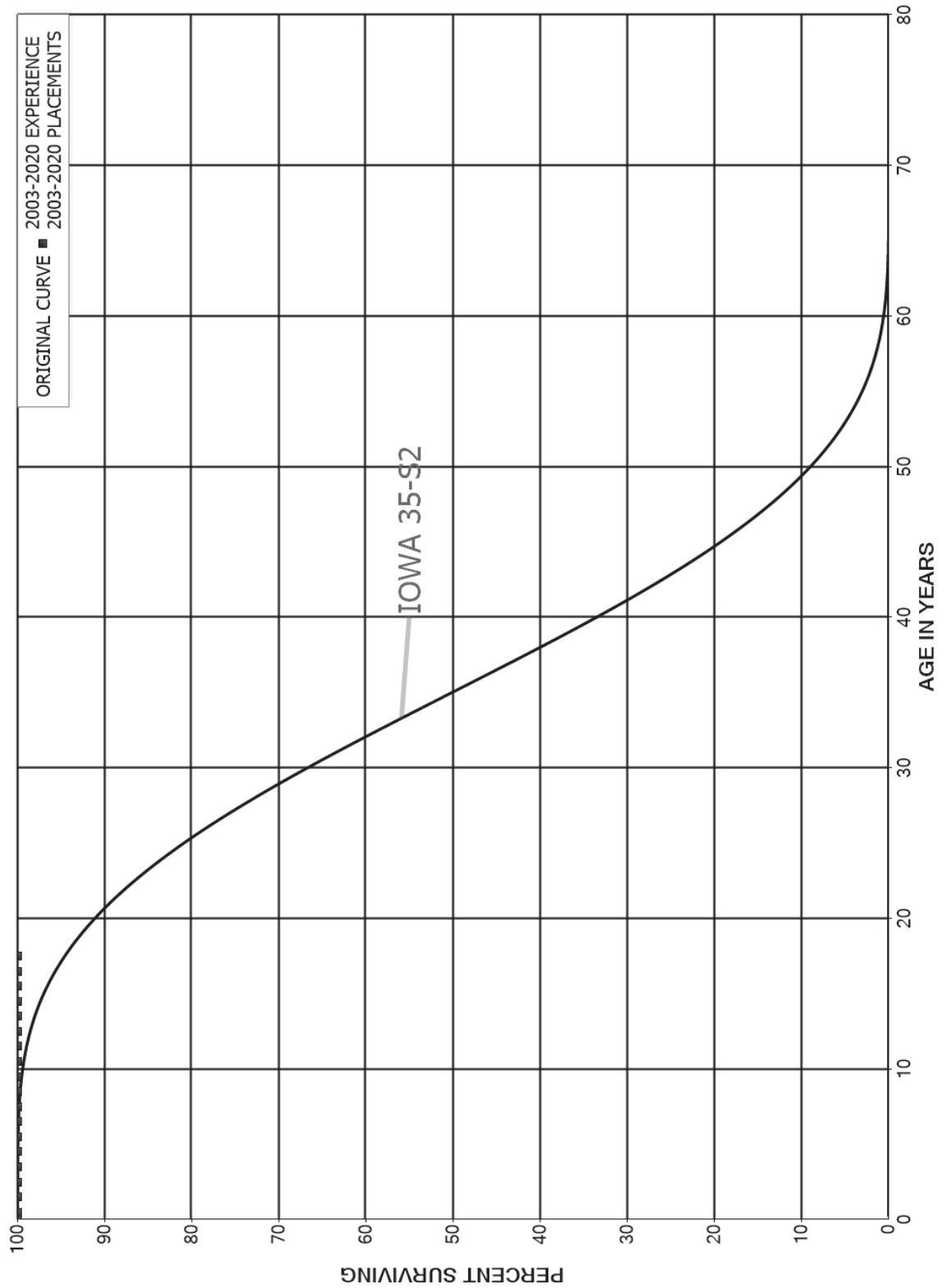
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.20 METER INSTALLATIONS - ERT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2006-2020			EXPERIENCE BAND 2006-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	10,632,126		0.0000	1.0000	100.00
0.5	10,052,566		0.0000	1.0000	100.00
1.5	10,052,566	19,112	0.0019	0.9981	100.00
2.5	10,033,455	93,865	0.0094	0.9906	99.81
3.5	9,939,590	129,762	0.0131	0.9869	98.88
4.5	9,809,828	87,139	0.0089	0.9911	97.59
5.5	9,722,689	92,939	0.0096	0.9904	96.72
6.5	9,629,751	103,554	0.0108	0.9892	95.79
7.5	9,526,197	96,509	0.0101	0.9899	94.76
8.5	9,429,688	107,272	0.0114	0.9886	93.80
9.5	9,322,415	143,695	0.0154	0.9846	92.74
10.5	9,178,720	231,746	0.0252	0.9748	91.31
11.5	4,199,036	139,328	0.0332	0.9668	89.00
12.5	2,830,576	117,458	0.0415	0.9585	86.05
13.5	1,086,869	95,052	0.0875	0.9125	82.48
14.5					75.26

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 383.00 HOUSE REGULATORS
ORIGINAL AND SMOOTH SURVIVOR CURVES



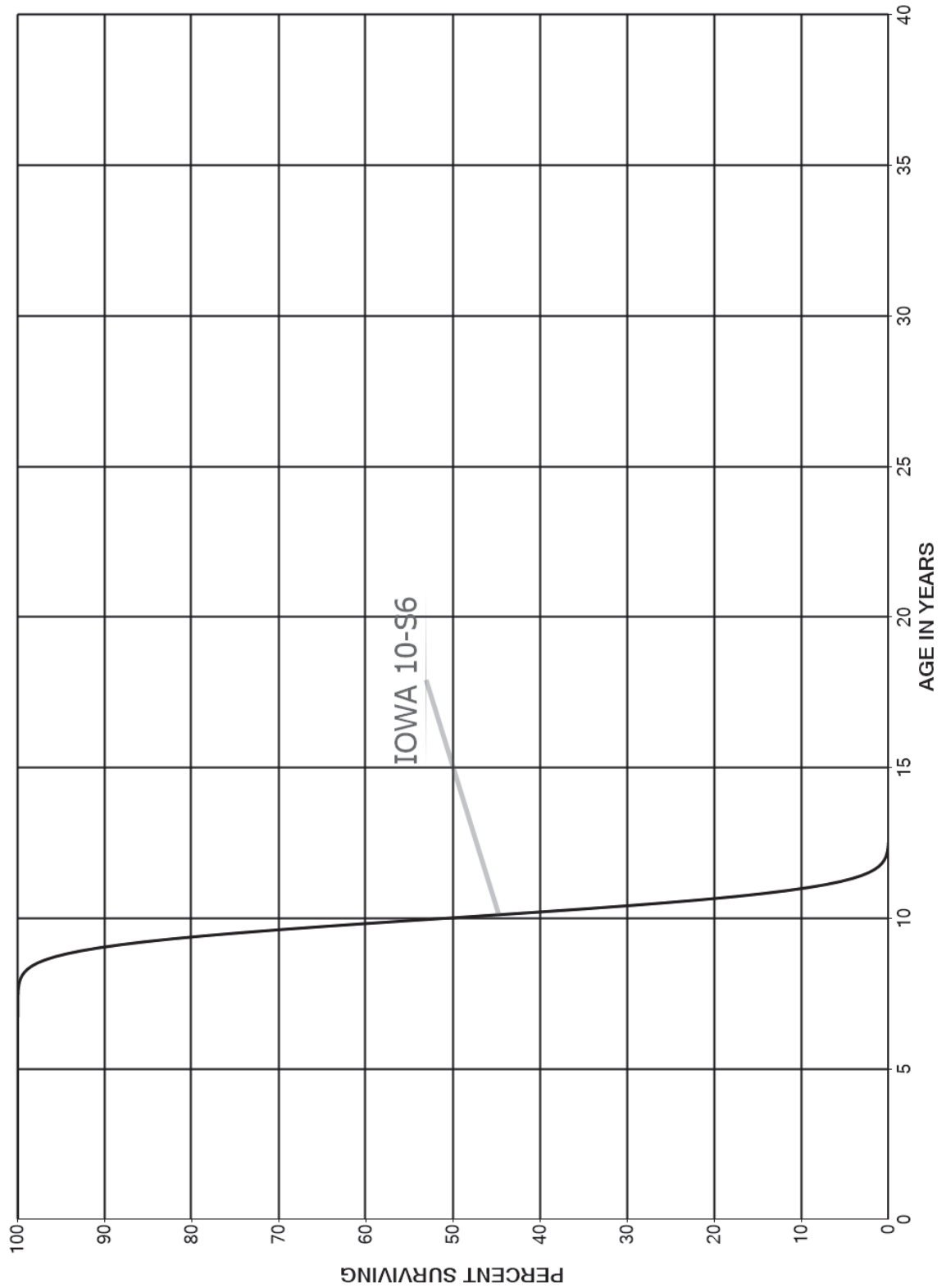
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 383.00 HOUSE REGULATORS

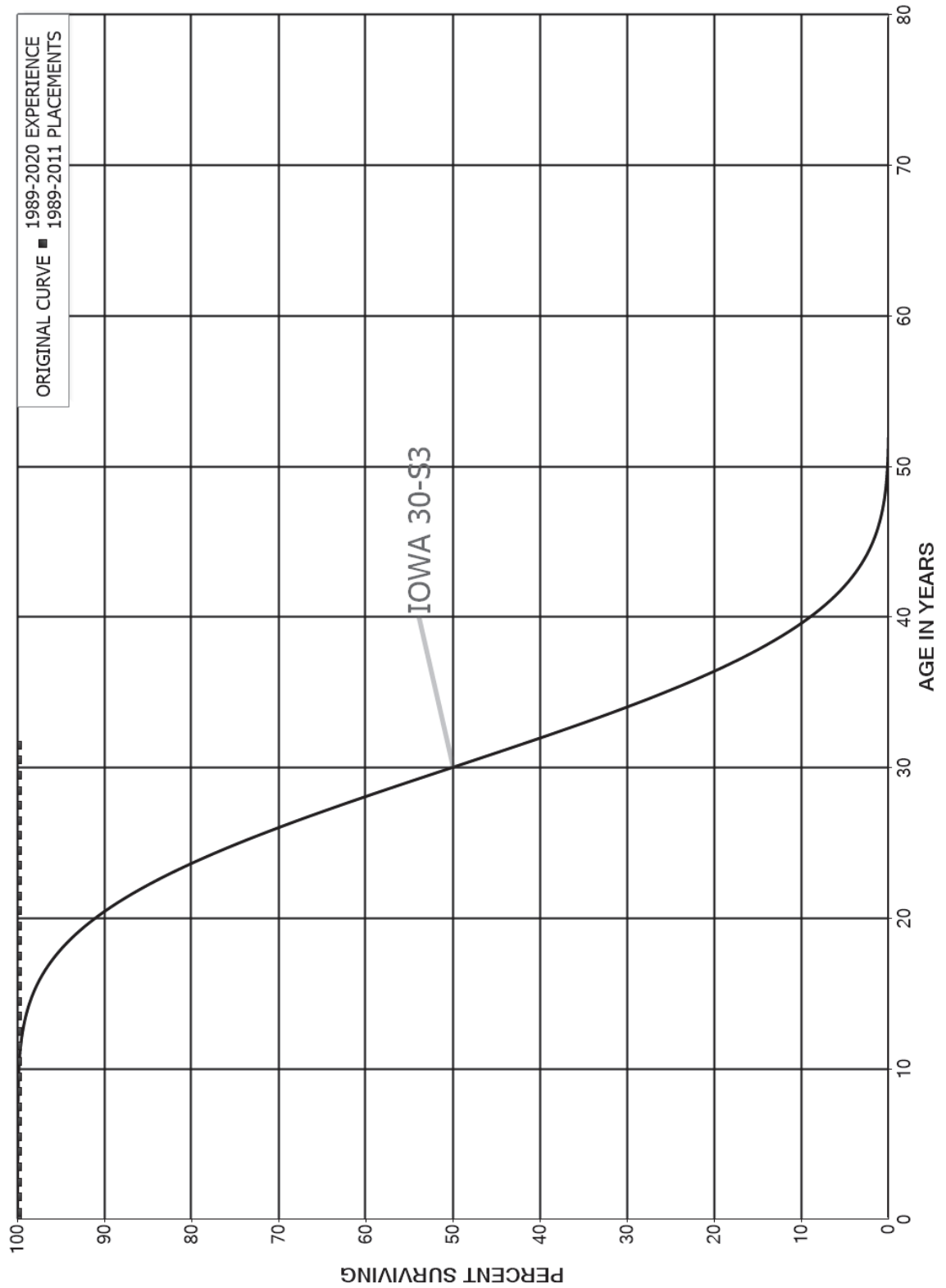
ORIGINAL LIFE TABLE

PLACEMENT BAND 2003-2020			EXPERIENCE BAND 2003-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,553,748		0.0000	1.0000	100.00
0.5	2,419,709		0.0000	1.0000	100.00
1.5	2,199,701		0.0000	1.0000	100.00
2.5	1,877,440		0.0000	1.0000	100.00
3.5	1,678,311		0.0000	1.0000	100.00
4.5	1,500,612		0.0000	1.0000	100.00
5.5	1,285,146		0.0000	1.0000	100.00
6.5	1,115,746		0.0000	1.0000	100.00
7.5	770,088		0.0000	1.0000	100.00
8.5	614,475		0.0000	1.0000	100.00
9.5	569,858		0.0000	1.0000	100.00
10.5	487,625		0.0000	1.0000	100.00
11.5	451,511		0.0000	1.0000	100.00
12.5	369,806		0.0000	1.0000	100.00
13.5	263,639		0.0000	1.0000	100.00
14.5	163,930		0.0000	1.0000	100.00
15.5	52,920		0.0000	1.0000	100.00
16.5	1,945		0.0000	1.0000	100.00
17.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 386.00 OTHER PROPERTY ON CUSTOMERS' PREMISES
SMOOTH SURVIVOR CURVE



NORTHWEST NATURAL GAS COMPANY
ACCOUNT 387.10 OTHER EQUIPMENT - CATHODIC PROTECTION TESTING
ORIGINAL AND SMOOTH SURVIVOR CURVES



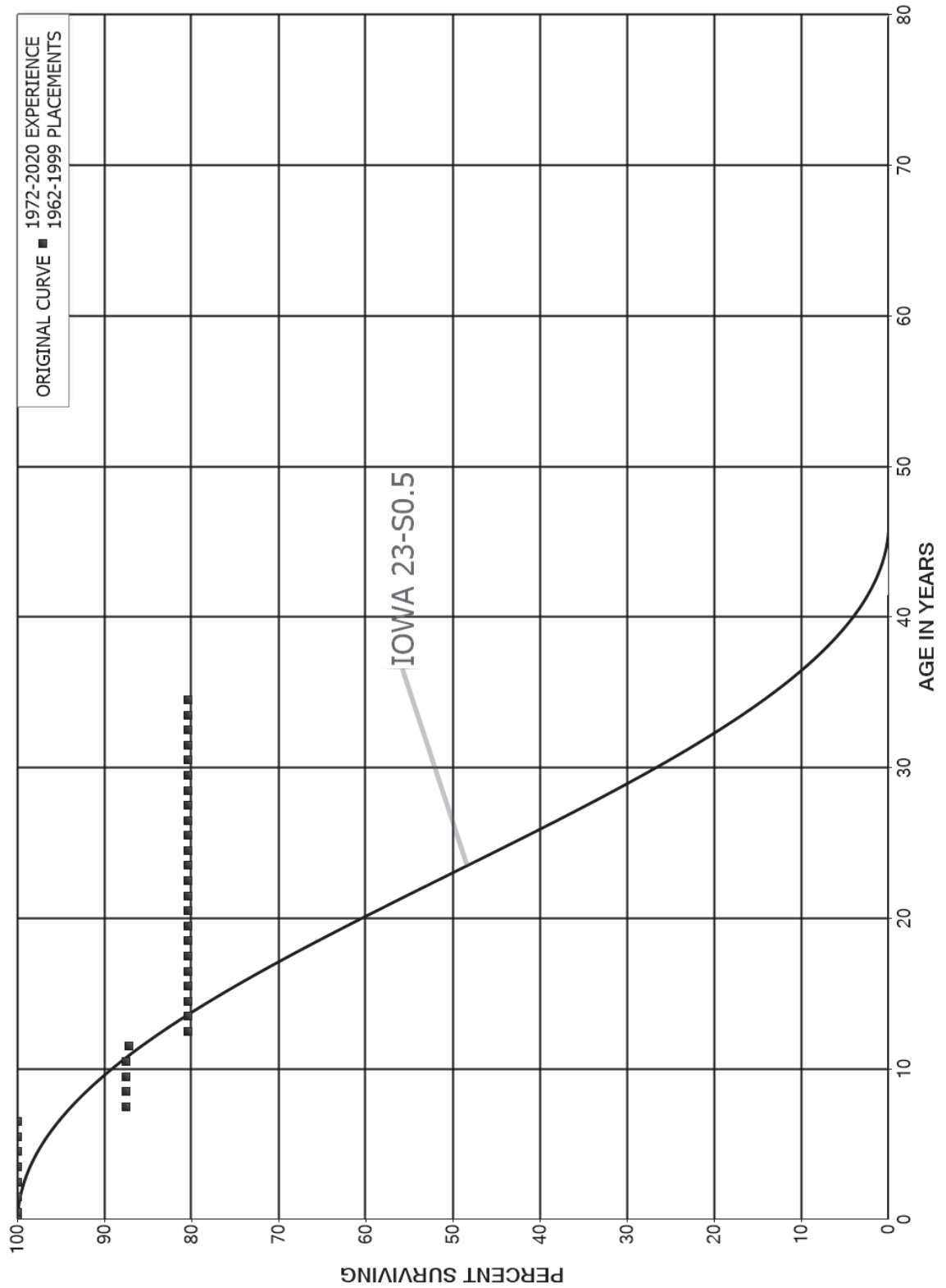
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.10 OTHER EQUIPMENT - CATHODIC PROTECTION TESTING

ORIGINAL LIFE TABLE

PLACEMENT BAND 1989-2011			EXPERIENCE BAND 1989-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	173,859		0.0000	1.0000	100.00
0.5	173,859		0.0000	1.0000	100.00
1.5	173,859		0.0000	1.0000	100.00
2.5	173,859		0.0000	1.0000	100.00
3.5	173,859		0.0000	1.0000	100.00
4.5	173,859		0.0000	1.0000	100.00
5.5	173,859		0.0000	1.0000	100.00
6.5	173,859		0.0000	1.0000	100.00
7.5	173,859		0.0000	1.0000	100.00
8.5	173,859		0.0000	1.0000	100.00
9.5	138,950		0.0000	1.0000	100.00
10.5	138,950		0.0000	1.0000	100.00
11.5	138,950		0.0000	1.0000	100.00
12.5	138,950		0.0000	1.0000	100.00
13.5	138,950		0.0000	1.0000	100.00
14.5	138,950		0.0000	1.0000	100.00
15.5	129,084		0.0000	1.0000	100.00
16.5	129,084		0.0000	1.0000	100.00
17.5	129,084		0.0000	1.0000	100.00
18.5	129,084		0.0000	1.0000	100.00
19.5	129,084		0.0000	1.0000	100.00
20.5	129,084		0.0000	1.0000	100.00
21.5	129,084		0.0000	1.0000	100.00
22.5	129,084		0.0000	1.0000	100.00
23.5	129,084		0.0000	1.0000	100.00
24.5	129,084		0.0000	1.0000	100.00
25.5	129,084		0.0000	1.0000	100.00
26.5	129,084		0.0000	1.0000	100.00
27.5	129,084		0.0000	1.0000	100.00
28.5	46,148		0.0000	1.0000	100.00
29.5	27,929		0.0000	1.0000	100.00
30.5	18,825		0.0000	1.0000	100.00
31.5					100.00

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 387.20 OTHER EQUIPMENT - CALORIMETERS AT GATE STATION
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.20 OTHER EQUIPMENT - CALORIMETERS AT GATE STATION

ORIGINAL LIFE TABLE

PLACEMENT BAND 1962-1999			EXPERIENCE BAND 1972-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	107,454		0.0000	1.0000	100.00
0.5	107,454	25	0.0002	0.9998	100.00
1.5	107,454		0.0000	1.0000	99.98
2.5	107,454		0.0000	1.0000	99.98
3.5	107,454		0.0000	1.0000	99.98
4.5	107,454		0.0000	1.0000	99.98
5.5	107,454		0.0000	1.0000	99.98
6.5	107,454	13,401	0.1247	0.8753	99.98
7.5	107,824		0.0000	1.0000	87.51
8.5	115,988		0.0000	1.0000	87.51
9.5	116,853		0.0000	1.0000	87.51
10.5	104,958	370	0.0035	0.9965	87.51
11.5	104,588	8,164	0.0781	0.9219	87.20
12.5	96,424		0.0000	1.0000	80.39
13.5	96,424		0.0000	1.0000	80.39
14.5	96,424		0.0000	1.0000	80.39
15.5	96,424		0.0000	1.0000	80.39
16.5	96,424		0.0000	1.0000	80.39
17.5	96,424		0.0000	1.0000	80.39
18.5	96,424		0.0000	1.0000	80.39
19.5	96,424		0.0000	1.0000	80.39
20.5	96,424		0.0000	1.0000	80.39
21.5	93,709		0.0000	1.0000	80.39
22.5	89,269		0.0000	1.0000	80.39
23.5	76,317		0.0000	1.0000	80.39
24.5	73,945		0.0000	1.0000	80.39
25.5	71,691		0.0000	1.0000	80.39
26.5	64,033		0.0000	1.0000	80.39
27.5	59,167		0.0000	1.0000	80.39
28.5	59,167		0.0000	1.0000	80.39
29.5	37,876		0.0000	1.0000	80.39
30.5	37,624		0.0000	1.0000	80.39
31.5	37,624		0.0000	1.0000	80.39
32.5	37,624		0.0000	1.0000	80.39
33.5	37,624		0.0000	1.0000	80.39
34.5	11,859		0.0000	1.0000	80.39
35.5	11,859		0.0000	1.0000	80.39
36.5	11,859		0.0000	1.0000	80.39
37.5	11,859		0.0000	1.0000	80.39
38.5	11,859		0.0000	1.0000	80.39

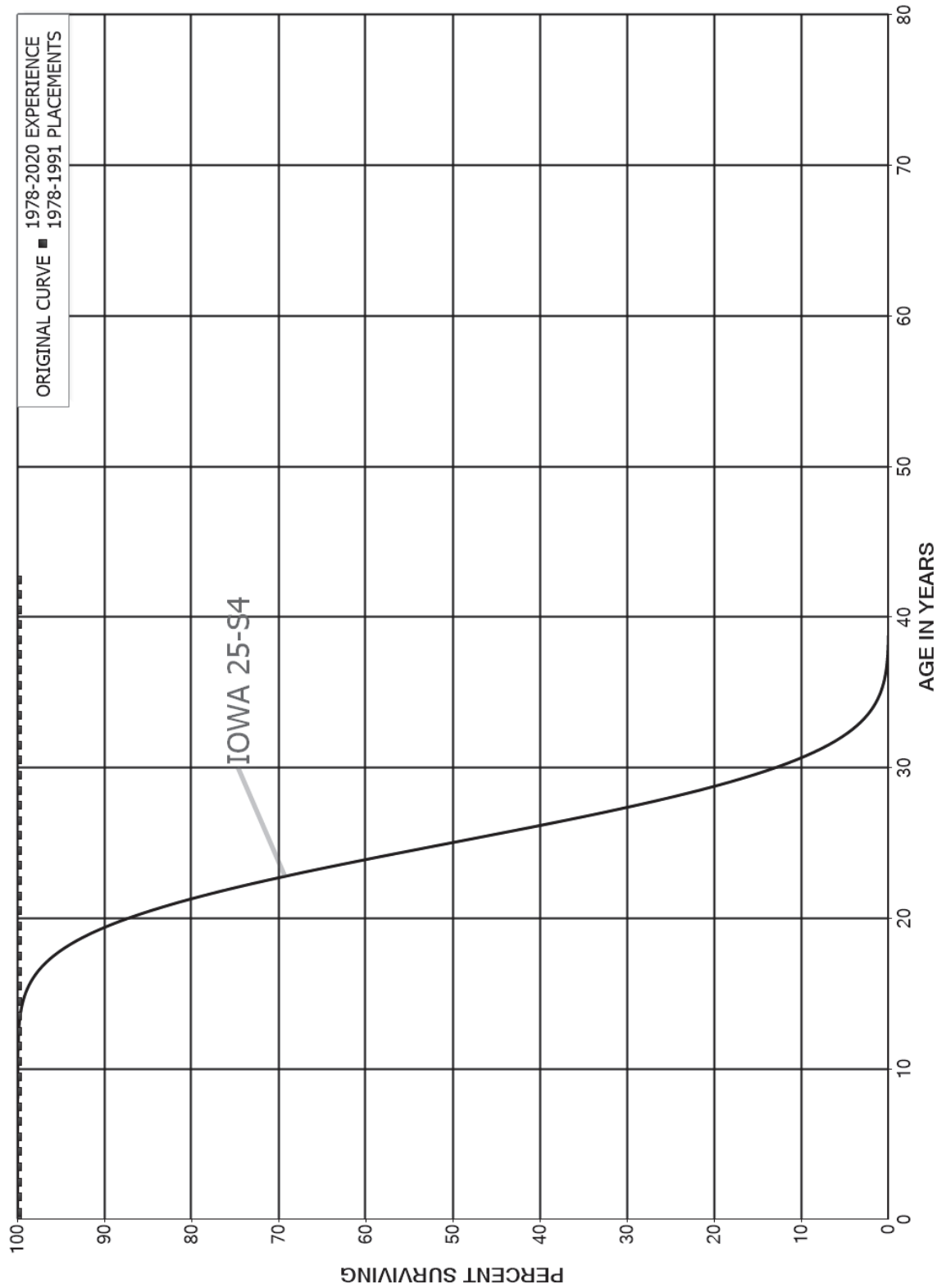
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.20 OTHER EQUIPMENT - CALORIMETERS AT GATE STATION

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1962-1999			EXPERIENCE BAND 1972-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	11,859		0.0000	1.0000	80.39
40.5	11,859		0.0000	1.0000	80.39
41.5	11,859		0.0000	1.0000	80.39
42.5	11,859		0.0000	1.0000	80.39
43.5	11,859		0.0000	1.0000	80.39
44.5	11,859		0.0000	1.0000	80.39
45.5	11,859		0.0000	1.0000	80.39
46.5	11,859		0.0000	1.0000	80.39
47.5	11,859		0.0000	1.0000	80.39
48.5	865		0.0000	1.0000	80.39
49.5	865		0.0000	1.0000	80.39
50.5	865		0.0000	1.0000	80.39
51.5	865		0.0000	1.0000	80.39
52.5	865		0.0000	1.0000	80.39
53.5	865		0.0000	1.0000	80.39
54.5	865		0.0000	1.0000	80.39
55.5	865		0.0000	1.0000	80.39
56.5	865		0.0000	1.0000	80.39
57.5	865		0.0000	1.0000	80.39
58.5					80.39

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 387.30 OTHER EQUIPMENT - METER TESTING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.30 OTHER EQUIPMENT - METER TESTING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1978-1991			EXPERIENCE BAND 1978-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	60,776		0.0000	1.0000	100.00
0.5	60,776		0.0000	1.0000	100.00
1.5	60,776		0.0000	1.0000	100.00
2.5	60,776		0.0000	1.0000	100.00
3.5	60,776		0.0000	1.0000	100.00
4.5	60,776		0.0000	1.0000	100.00
5.5	60,776		0.0000	1.0000	100.00
6.5	60,776		0.0000	1.0000	100.00
7.5	60,776		0.0000	1.0000	100.00
8.5	60,776		0.0000	1.0000	100.00
9.5	60,776		0.0000	1.0000	100.00
10.5	72,671		0.0000	1.0000	100.00
11.5	72,671		0.0000	1.0000	100.00
12.5	72,671		0.0000	1.0000	100.00
13.5	72,671		0.0000	1.0000	100.00
14.5	72,671		0.0000	1.0000	100.00
15.5	72,671		0.0000	1.0000	100.00
16.5	72,671		0.0000	1.0000	100.00
17.5	72,671		0.0000	1.0000	100.00
18.5	72,671		0.0000	1.0000	100.00
19.5	72,671		0.0000	1.0000	100.00
20.5	72,671		0.0000	1.0000	100.00
21.5	72,671		0.0000	1.0000	100.00
22.5	72,671		0.0000	1.0000	100.00
23.5	72,671		0.0000	1.0000	100.00
24.5	72,671		0.0000	1.0000	100.00
25.5	72,671		0.0000	1.0000	100.00
26.5	72,671		0.0000	1.0000	100.00
27.5	72,671		0.0000	1.0000	100.00
28.5	72,671		0.0000	1.0000	100.00
29.5	60,776		0.0000	1.0000	100.00
30.5	60,170		0.0000	1.0000	100.00
31.5	60,170		0.0000	1.0000	100.00
32.5	60,170		0.0000	1.0000	100.00
33.5	58,537		0.0000	1.0000	100.00
34.5	57,190		0.0000	1.0000	100.00
35.5	16,792		0.0000	1.0000	100.00
36.5	15,567		0.0000	1.0000	100.00
37.5	15,567		0.0000	1.0000	100.00
38.5	15,567		0.0000	1.0000	100.00

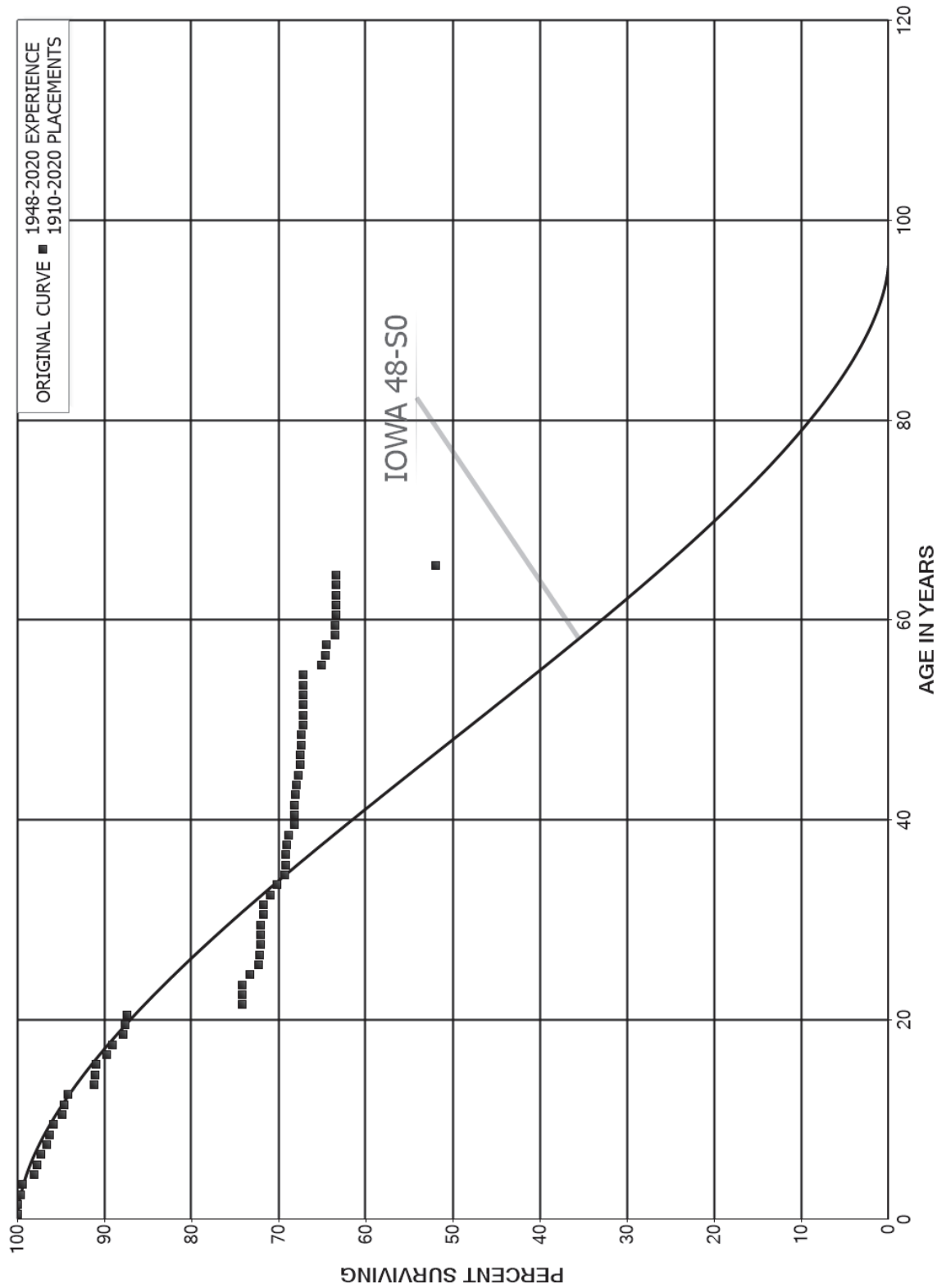
NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.30 OTHER EQUIPMENT - METER TESTING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1978-1991			EXPERIENCE BAND 1978-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	15,567		0.0000	1.0000	100.00
40.5	15,567		0.0000	1.0000	100.00
41.5	6,819		0.0000	1.0000	100.00
42.5					100.00

NORTHWEST NATURAL GAS COMPANY
ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1910-2020

EXPERIENCE BAND 1948-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	111,658,380	39,299	0.0004	0.9996	100.00
0.5	110,525,450	63,712	0.0006	0.9994	99.96
1.5	107,245,234	278,632	0.0026	0.9974	99.91
2.5	94,758,173	192,359	0.0020	0.9980	99.65
3.5	93,345,293	1,337,593	0.0143	0.9857	99.45
4.5	89,157,676	300,827	0.0034	0.9966	98.02
5.5	85,132,129	393,787	0.0046	0.9954	97.69
6.5	74,939,415	475,102	0.0063	0.9937	97.24
7.5	40,146,941	126,822	0.0032	0.9968	96.62
8.5	31,200,849	163,031	0.0052	0.9948	96.32
9.5	27,335,219	280,746	0.0103	0.9897	95.81
10.5	26,159,673	66,400	0.0025	0.9975	94.83
11.5	25,371,285	99,411	0.0039	0.9961	94.59
12.5	24,593,442	789,433	0.0321	0.9679	94.22
13.5	23,654,478	38,768	0.0016	0.9984	91.19
14.5	22,388,542	24,337	0.0011	0.9989	91.04
15.5	21,050,889	294,764	0.0140	0.9860	90.94
16.5	16,232,195	100,550	0.0062	0.9938	89.67
17.5	14,539,642	200,374	0.0138	0.9862	89.12
18.5	13,967,581	49,847	0.0036	0.9964	87.89
19.5	13,133,821	23,841	0.0018	0.9982	87.57
20.5	12,192,550	1,843,884	0.1512	0.8488	87.42
21.5	9,591,848	913	0.0001	0.9999	74.20
22.5	8,767,484	4	0.0000	1.0000	74.19
23.5	8,320,789	105,111	0.0126	0.9874	74.19
24.5	8,091,464	107,272	0.0133	0.9867	73.25
25.5	7,847,775	9,617	0.0012	0.9988	72.28
26.5	7,697,791	9,618	0.0012	0.9988	72.19
27.5	7,527,040	3,094	0.0004	0.9996	72.10
28.5	7,265,195	2,415	0.0003	0.9997	72.07
29.5	7,120,815	27,872	0.0039	0.9961	72.05
30.5	6,932,422	6,135	0.0009	0.9991	71.77
31.5	6,826,571	70,812	0.0104	0.9896	71.70
32.5	6,679,736	74,315	0.0111	0.9889	70.96
33.5	6,530,039	84,148	0.0129	0.9871	70.17
34.5	6,271,658	7,153	0.0011	0.9989	69.26
35.5	6,206,009	2,060	0.0003	0.9997	69.19
36.5	6,141,694	6,901	0.0011	0.9989	69.16
37.5	6,030,390	18,930	0.0031	0.9969	69.08
38.5	5,739,605	53,995	0.0094	0.9906	68.87

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2020			EXPERIENCE BAND 1948-2020			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	5,205,800	710	0.0001	0.9999	68.22	
40.5	4,854,605	3,798	0.0008	0.9992	68.21	
41.5	4,817,502	3,567	0.0007	0.9993	68.16	
42.5	4,015,223	9,479	0.0024	0.9976	68.11	
43.5	3,934,992	12,969	0.0033	0.9967	67.95	
44.5	3,247,897	8,014	0.0025	0.9975	67.72	
45.5	3,200,238	786	0.0002	0.9998	67.56	
46.5	1,781,494	4,086	0.0023	0.9977	67.54	
47.5	1,548,939	622	0.0004	0.9996	67.38	
48.5	1,466,212	3,943	0.0027	0.9973	67.36	
49.5	1,439,867	450	0.0003	0.9997	67.18	
50.5	1,423,478	28	0.0000	1.0000	67.15	
51.5	1,399,515		0.0000	1.0000	67.15	
52.5	1,341,347		0.0000	1.0000	67.15	
53.5	1,317,213	418	0.0003	0.9997	67.15	
54.5	664,285	20,908	0.0315	0.9685	67.13	
55.5	370,327	2,262	0.0061	0.9939	65.02	
56.5	242,713	558	0.0023	0.9977	64.62	
57.5	235,279	3,476	0.0148	0.9852	64.47	
58.5	226,514		0.0000	1.0000	63.52	
59.5	219,340	435	0.0020	0.9980	63.52	
60.5	216,590		0.0000	1.0000	63.39	
61.5	215,053		0.0000	1.0000	63.39	
62.5	212,969		0.0000	1.0000	63.39	
63.5	209,150		0.0000	1.0000	63.39	
64.5	212,571	38,544	0.1813	0.8187	63.39	
65.5	156,173	9,030	0.0578	0.9422	51.90	
66.5	147,080		0.0000	1.0000	48.90	
67.5	135,548		0.0000	1.0000	48.90	
68.5	106,328	8,917	0.0839	0.9161	48.90	
69.5	87,330		0.0000	1.0000	44.80	
70.5	87,082		0.0000	1.0000	44.80	
71.5	78,739		0.0000	1.0000	44.80	
72.5	75,677		0.0000	1.0000	44.80	
73.5	68,896		0.0000	1.0000	44.80	
74.5	68,703		0.0000	1.0000	44.80	
75.5	67,941		0.0000	1.0000	44.80	
76.5	67,910		0.0000	1.0000	44.80	
77.5	64,852		0.0000	1.0000	44.80	
78.5	64,341		0.0000	1.0000	44.80	

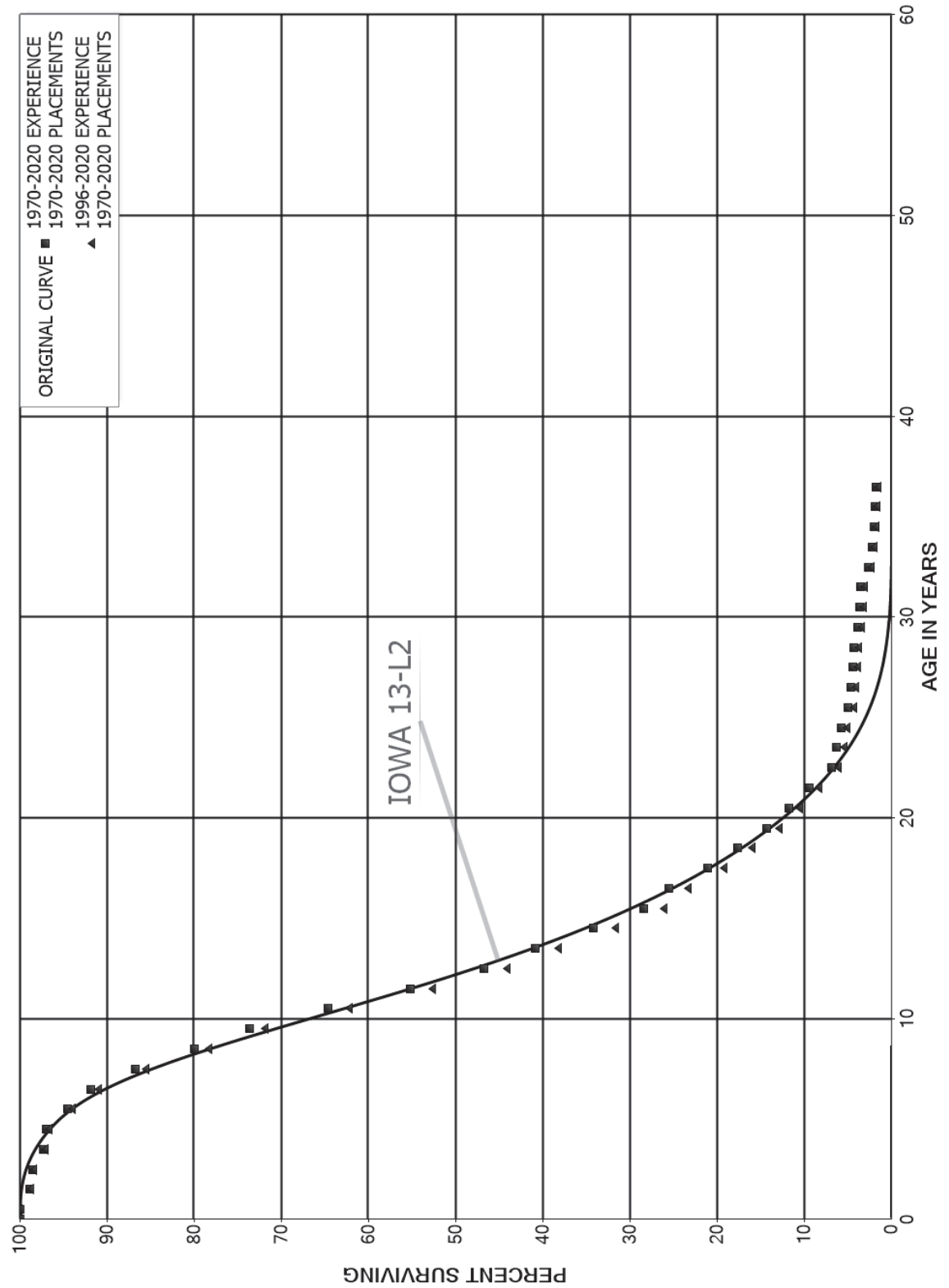
NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1910-2020			EXPERIENCE BAND 1948-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	62,997		0.0000	1.0000	44.80
80.5	62,902		0.0000	1.0000	44.80
81.5	62,795		0.0000	1.0000	44.80
82.5	61,850		0.0000	1.0000	44.80
83.5	61,614		0.0000	1.0000	44.80
84.5	61,581		0.0000	1.0000	44.80
85.5	61,581	416	0.0068	0.9932	44.80
86.5	61,165		0.0000	1.0000	44.50
87.5	61,165		0.0000	1.0000	44.50
88.5	61,165		0.0000	1.0000	44.50
89.5	61,165		0.0000	1.0000	44.50
90.5	60,988		0.0000	1.0000	44.50
91.5	60,988	4,535	0.0744	0.9256	44.50
92.5	56,453		0.0000	1.0000	41.19
93.5	55,908		0.0000	1.0000	41.19
94.5	55,908	5,153	0.0922	0.9078	41.19
95.5	50,663		0.0000	1.0000	37.39
96.5	50,652		0.0000	1.0000	37.39
97.5	50,585		0.0000	1.0000	37.39
98.5	50,075		0.0000	1.0000	37.39
99.5	50,075		0.0000	1.0000	37.39
100.5	49,651		0.0000	1.0000	37.39
101.5	49,651		0.0000	1.0000	37.39
102.5	49,651		0.0000	1.0000	37.39
103.5	49,651		0.0000	1.0000	37.39
104.5	49,651		0.0000	1.0000	37.39
105.5	49,479		0.0000	1.0000	37.39
106.5	49,479		0.0000	1.0000	37.39
107.5					37.39

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 392.00 TRANSPORTATION EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1970-2020

EXPERIENCE BAND 1970-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	94,713,152		0.0000	1.0000	100.00
0.5	90,547,126	1,043,743	0.0115	0.9885	100.00
1.5	82,093,151	277,244	0.0034	0.9966	98.85
2.5	76,527,656	913,832	0.0119	0.9881	98.51
3.5	69,594,459	295,923	0.0043	0.9957	97.34
4.5	62,673,319	1,577,833	0.0252	0.9748	96.92
5.5	55,121,462	1,569,164	0.0285	0.9715	94.48
6.5	51,318,866	2,852,770	0.0556	0.9444	91.79
7.5	45,296,900	3,551,997	0.0784	0.9216	86.69
8.5	36,832,292	2,880,013	0.0782	0.9218	79.89
9.5	29,426,186	3,618,309	0.1230	0.8770	73.65
10.5	24,254,957	3,520,818	0.1452	0.8548	64.59
11.5	19,125,212	2,958,975	0.1547	0.8453	55.21
12.5	15,372,271	1,912,317	0.1244	0.8756	46.67
13.5	12,834,638	2,098,409	0.1635	0.8365	40.87
14.5	10,370,672	1,750,051	0.1687	0.8313	34.18
15.5	8,320,639	866,242	0.1041	0.8959	28.42
16.5	6,931,939	1,200,911	0.1732	0.8268	25.46
17.5	5,342,665	857,864	0.1606	0.8394	21.05
18.5	4,412,728	848,209	0.1922	0.8078	17.67
19.5	3,471,338	620,939	0.1789	0.8211	14.27
20.5	2,809,737	560,070	0.1993	0.8007	11.72
21.5	2,050,980	547,108	0.2668	0.7332	9.38
22.5	1,333,678	123,122	0.0923	0.9077	6.88
23.5	1,175,396	90,072	0.0766	0.9234	6.24
24.5	989,256	146,339	0.1479	0.8521	5.77
25.5	682,713	40,321	0.0591	0.9409	4.91
26.5	497,938	20,638	0.0414	0.9586	4.62
27.5	477,300	19,914	0.0417	0.9583	4.43
28.5	457,386	42,868	0.0937	0.9063	4.25
29.5	404,672	19,394	0.0479	0.9521	3.85
30.5	368,324	20,433	0.0555	0.9445	3.66
31.5	347,891	86,154	0.2476	0.7524	3.46
32.5	249,651	39,861	0.1597	0.8403	2.60
33.5	201,702	24,069	0.1193	0.8807	2.19
34.5	147,565	6,956	0.0471	0.9529	1.93
35.5	140,028	12,235	0.0874	0.9126	1.84
36.5	125,449		0.0000	1.0000	1.68
37.5	95,093	6,118	0.0643	0.9357	1.68
38.5	88,975	9,517	0.1070	0.8930	1.57

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 392.00 TRANSPORTATION EQUIPMENT
 ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1970-2020			EXPERIENCE BAND 1970-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	79,458	3,518	0.0443	0.9557	1.40
40.5	75,940		0.0000	1.0000	1.34
41.5	75,940		0.0000	1.0000	1.34
42.5	75,940		0.0000	1.0000	1.34
43.5	75,940		0.0000	1.0000	1.34
44.5	69,477		0.0000	1.0000	1.34
45.5	69,477		0.0000	1.0000	1.34
46.5	69,477		0.0000	1.0000	1.34
47.5	69,477		0.0000	1.0000	1.34
48.5					1.34

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1970-2020

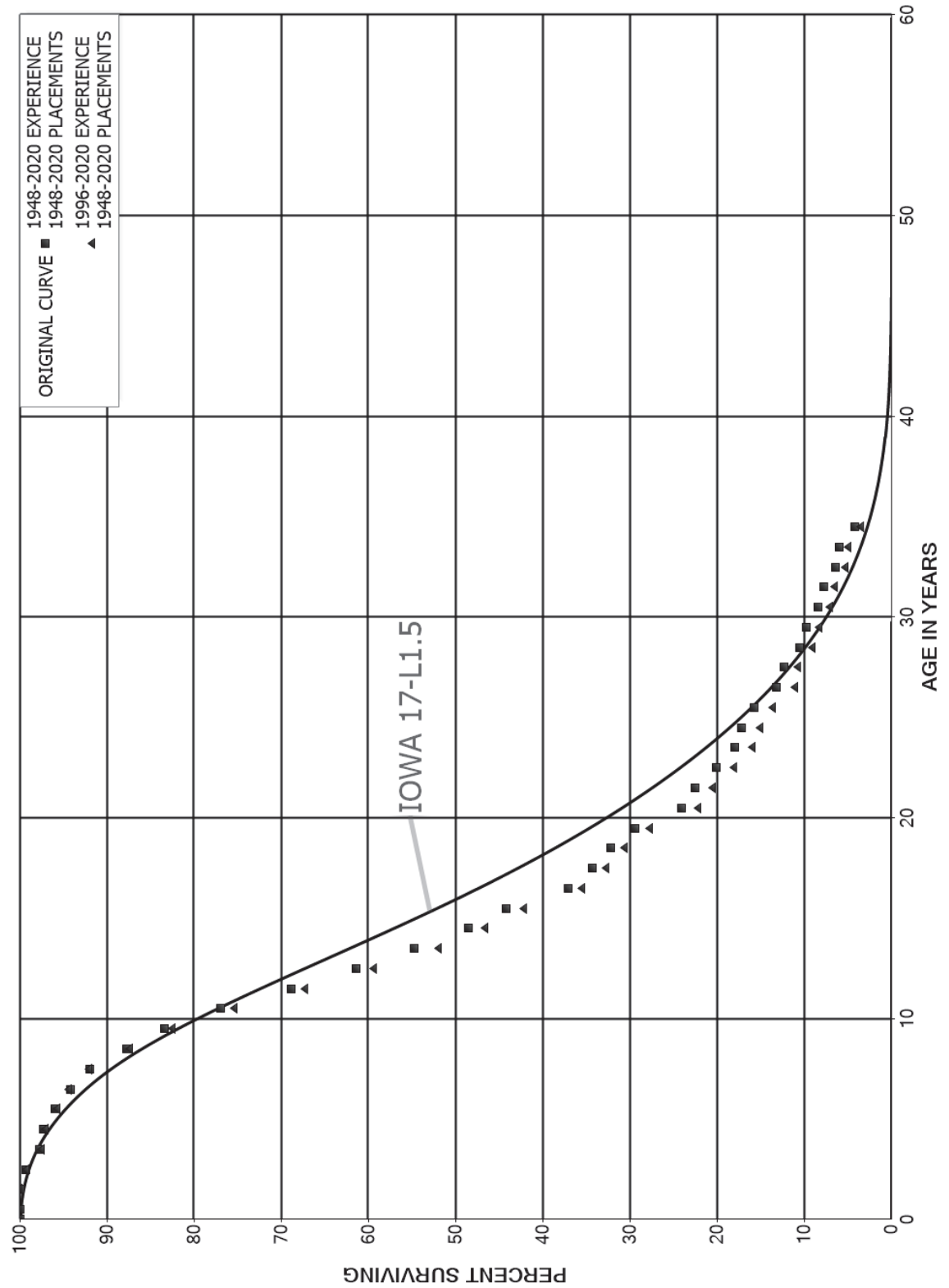
EXPERIENCE BAND 1996-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	78,320,373		0.0000	1.0000	100.00
0.5	77,014,848	1,043,743	0.0136	0.9864	100.00
1.5	70,914,664	277,244	0.0039	0.9961	98.64
2.5	67,819,282	913,832	0.0135	0.9865	98.26
3.5	61,791,735	295,923	0.0048	0.9952	96.94
4.5	56,649,555	1,577,833	0.0279	0.9721	96.47
5.5	50,335,280	1,569,164	0.0312	0.9688	93.78
6.5	47,525,643	2,852,770	0.0600	0.9400	90.86
7.5	42,226,852	3,551,997	0.0841	0.9159	85.41
8.5	34,389,659	2,880,013	0.0837	0.9163	78.22
9.5	26,986,456	3,618,309	0.1341	0.8659	71.67
10.5	22,896,399	3,520,818	0.1538	0.8462	62.06
11.5	18,013,704	2,958,975	0.1643	0.8357	52.52
12.5	14,497,420	1,912,317	0.1319	0.8681	43.89
13.5	12,190,872	2,098,409	0.1721	0.8279	38.10
14.5	9,892,808	1,750,051	0.1769	0.8231	31.54
15.5	8,068,263	866,242	0.1074	0.8926	25.96
16.5	6,723,609	1,200,911	0.1786	0.8214	23.18
17.5	5,178,702	857,864	0.1657	0.8343	19.04
18.5	4,273,616	848,209	0.1985	0.8015	15.88
19.5	3,338,689	620,939	0.1860	0.8140	12.73
20.5	2,677,088	560,070	0.2092	0.7908	10.36
21.5	1,948,399	547,108	0.2808	0.7192	8.19
22.5	1,233,474	123,122	0.0998	0.9002	5.89
23.5	1,161,199	90,072	0.0776	0.9224	5.31
24.5	979,739	146,339	0.1494	0.8506	4.89
25.5	682,713	40,321	0.0591	0.9409	4.16
26.5	497,938	20,638	0.0414	0.9586	3.92
27.5	477,300	19,914	0.0417	0.9583	3.75
28.5	457,386	42,868	0.0937	0.9063	3.60
29.5	404,672	19,394	0.0479	0.9521	3.26
30.5	368,324	20,433	0.0555	0.9445	3.10
31.5	347,891	86,154	0.2476	0.7524	2.93
32.5	249,651	39,861	0.1597	0.8403	2.21
33.5	201,702	24,069	0.1193	0.8807	1.85
34.5	147,565	6,956	0.0471	0.9529	1.63
35.5	140,028	12,235	0.0874	0.9126	1.56
36.5	125,449		0.0000	1.0000	1.42
37.5	95,093	6,118	0.0643	0.9357	1.42
38.5	88,975	9,517	0.1070	0.8930	1.33

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 392.00 TRANSPORTATION EQUIPMENT
 ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1970-2020			EXPERIENCE BAND 1996-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	79,458	3,518	0.0443	0.9557	1.19
40.5	75,940		0.0000	1.0000	1.13
41.5	75,940		0.0000	1.0000	1.13
42.5	75,940		0.0000	1.0000	1.13
43.5	75,940		0.0000	1.0000	1.13
44.5	69,477		0.0000	1.0000	1.13
45.5	69,477		0.0000	1.0000	1.13
46.5	69,477		0.0000	1.0000	1.13
47.5	69,477		0.0000	1.0000	1.13
48.5					1.13

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 396.00 POWER OPERATED EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2020			EXPERIENCE BAND 1948-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	22,323,984	4,198	0.0002	0.9998	100.00
0.5	20,636,738		0.0000	1.0000	99.98
1.5	18,926,514	124,142	0.0066	0.9934	99.98
2.5	16,918,054	268,514	0.0159	0.9841	99.33
3.5	15,150,605	66,342	0.0044	0.9956	97.75
4.5	14,494,499	198,255	0.0137	0.9863	97.32
5.5	13,232,269	252,087	0.0191	0.9809	95.99
6.5	12,677,581	297,998	0.0235	0.9765	94.16
7.5	11,216,542	520,968	0.0464	0.9536	91.95
8.5	9,966,909	487,032	0.0489	0.9511	87.68
9.5	8,547,936	664,121	0.0777	0.9223	83.39
10.5	7,042,408	744,428	0.1057	0.8943	76.91
11.5	6,218,610	666,155	0.1071	0.8929	68.78
12.5	5,524,864	606,769	0.1098	0.8902	61.42
13.5	4,847,014	543,883	0.1122	0.8878	54.67
14.5	3,848,356	346,031	0.0899	0.9101	48.54
15.5	2,955,620	474,804	0.1606	0.8394	44.17
16.5	2,352,500	179,891	0.0765	0.9235	37.08
17.5	2,087,471	124,162	0.0595	0.9405	34.24
18.5	1,742,165	151,876	0.0872	0.9128	32.20
19.5	1,590,259	290,818	0.1829	0.8171	29.40
20.5	1,248,991	79,614	0.0637	0.9363	24.02
21.5	1,126,864	122,544	0.1087	0.8913	22.49
22.5	948,930	97,196	0.1024	0.8976	20.04
23.5	701,120	29,940	0.0427	0.9573	17.99
24.5	595,709	51,601	0.0866	0.9134	17.22
25.5	510,643	82,733	0.1620	0.8380	15.73
26.5	385,354	27,515	0.0714	0.9286	13.18
27.5	357,839	50,808	0.1420	0.8580	12.24
28.5	307,031	22,348	0.0728	0.9272	10.50
29.5	296,558	41,139	0.1387	0.8613	9.74
30.5	251,070	19,501	0.0777	0.9223	8.39
31.5	216,909	37,953	0.1750	0.8250	7.74
32.5	178,956	12,255	0.0685	0.9315	6.38
33.5	166,701	49,370	0.2962	0.7038	5.95
34.5	117,331		0.0000	1.0000	4.18
35.5	54,944		0.0000	1.0000	4.18
36.5	54,944		0.0000	1.0000	4.18
37.5	54,944		0.0000	1.0000	4.18
38.5	54,944		0.0000	1.0000	4.18

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2020			EXPERIENCE BAND 1948-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	54,944		0.0000	1.0000	4.18
40.5	54,944		0.0000	1.0000	4.18
41.5	30,054		0.0000	1.0000	4.18
42.5	30,054	20,334	0.6766	0.3234	4.18
43.5	1,025		0.0000	1.0000	1.35
44.5	1,025		0.0000	1.0000	1.35
45.5	1,025		0.0000	1.0000	1.35
46.5	1,025		0.0000	1.0000	1.35
47.5	1,025	1,025	1.0000		1.35
48.5					

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1948-2020

EXPERIENCE BAND 1996-2020

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	19,143,494	4,198	0.0002	0.9998	100.00
0.5	17,754,327		0.0000	1.0000	99.98
1.5	16,522,238	124,142	0.0075	0.9925	99.98
2.5	14,728,215	268,514	0.0182	0.9818	99.23
3.5	13,167,910	66,342	0.0050	0.9950	97.42
4.5	12,689,400	165,711	0.0131	0.9869	96.93
5.5	11,623,556	166,694	0.0143	0.9857	95.66
6.5	11,184,604	283,184	0.0253	0.9747	94.29
7.5	9,888,067	499,485	0.0505	0.9495	91.90
8.5	8,771,035	487,032	0.0555	0.9445	87.26
9.5	7,474,700	642,526	0.0860	0.9140	82.41
10.5	6,190,077	665,650	0.1075	0.8925	75.33
11.5	5,479,874	647,115	0.1181	0.8819	67.23
12.5	4,824,076	606,769	0.1258	0.8742	59.29
13.5	4,157,388	431,022	0.1037	0.8963	51.83
14.5	3,347,934	318,379	0.0951	0.9049	46.46
15.5	2,571,938	405,280	0.1576	0.8424	42.04
16.5	2,113,495	164,325	0.0778	0.9222	35.42
17.5	1,928,769	124,162	0.0644	0.9356	32.66
18.5	1,583,463	151,876	0.0959	0.9041	30.56
19.5	1,431,557	290,818	0.2031	0.7969	27.63
20.5	1,099,589	79,614	0.0724	0.9276	22.02
21.5	996,963	122,544	0.1229	0.8771	20.42
22.5	819,029	97,196	0.1187	0.8813	17.91
23.5	571,219	29,940	0.0524	0.9476	15.79
24.5	516,696	50,701	0.0981	0.9019	14.96
25.5	432,530	82,733	0.1913	0.8087	13.49
26.5	307,241	7,180	0.0234	0.9766	10.91
27.5	320,395	50,808	0.1586	0.8414	10.66
28.5	269,587	22,348	0.0829	0.9171	8.97
29.5	261,948	41,139	0.1570	0.8430	8.22
30.5	241,350	19,501	0.0808	0.9192	6.93
31.5	207,189	37,953	0.1832	0.8168	6.37
32.5	177,931	12,255	0.0689	0.9311	5.20
33.5	165,676	49,370	0.2980	0.7020	4.85
34.5	116,306		0.0000	1.0000	3.40
35.5	53,919		0.0000	1.0000	3.40
36.5	53,919		0.0000	1.0000	3.40
37.5	53,919		0.0000	1.0000	3.40
38.5	53,919		0.0000	1.0000	3.40

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1948-2020			EXPERIENCE BAND 1996-2020		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	53,919		0.0000	1.0000	3.40
40.5	53,919		0.0000	1.0000	3.40
41.5	29,029		0.0000	1.0000	3.40
42.5	29,029	20,334	0.7005	0.2995	3.40
43.5					1.02
44.5					
45.5					
46.5					
47.5	1,025	1,025	1.0000		
48.5					

PART VIII. NET SALVAGE STATISTICS

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 376.11 AND 376.12 MAINS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1993	1,431,992	226,683	16		0	226,683-	16-
1994	1,342,378	503,908	38		0	503,908-	38-
1995	344,510	450,493	131		0	450,493-	131-
1996	1,098,128	507,451	46		0	507,451-	46-
1997	1,806,918	503,848	28		0	503,848-	28-
1998	1,534,412	584,938	38		0	584,938-	38-
1999	1,902,441	652,267	34	15-	0	652,282-	34-
2000	1,690,556	86,394	5		0	86,394-	5-
2001	2,229,849	807,009	36		0	807,009-	36-
2002	1,765,905	59,291	3	53,763-	3-	113,054-	6-
2003	978,308	1,219,533	125	3,457	0	1,216,076-	124-
2004	1,104,995	1,369,122	124		0	1,369,122-	124-
2005	1,600,635	1,206,093	75		0	1,206,093-	75-
2006	3,661,277	1,273,053	35		0	1,273,053-	35-
2007	1,377,807	1,317,655	96		0	1,317,655-	96-
2008	794,472	1,177,857	148		0	1,177,857-	148-
2009	985,969	1,375,758	140	31,298	3	1,344,460-	136-
2010	874,891	2,057,941	235	72,780	8	1,985,161-	227-
2011	1,100,014	2,172,997	198	50,054	5	2,122,943-	193-
2012	4,007,215	1,968,930	49	33,775	1	1,935,155-	48-
2013	910,088	1,829,071	201	41,432	5	1,787,639-	196-
2014	3,674,656	2,600,318	71	44,128	1	2,556,190-	70-
2015	839,793	2,844,855	339	20,544	2	2,824,311-	336-
2016	1,258,301	2,367,778	188	18,016	1	2,349,762-	187-
2017	393,185	1,743,030	443	36,627	9	1,706,403-	434-
2018	583,585	2,079,219	356	77,396	13	2,001,823-	343-
2019	495,564	993,867	201	94,181	19	899,686-	182-
2020	89,443	214,670	240	73,714	82	140,956-	158-
TOTAL	39,877,287	34,194,029	86	543,624	1	33,650,405-	84-

THREE-YEAR MOVING AVERAGES

93-95	1,039,627	393,695	38		0	393,695-	38-
94-96	928,339	487,284	52		0	487,284-	52-
95-97	1,083,185	487,264	45		0	487,264-	45-
96-98	1,479,819	532,079	36		0	532,079-	36-
97-99	1,747,924	580,351	33	5-	0	580,356-	33-
98-00	1,709,136	441,200	26	5-	0	441,205-	26-
99-01	1,940,949	515,223	27	5-	0	515,228-	27-
00-02	1,895,437	317,565	17	17,921-	1-	335,486-	18-
01-03	1,658,021	695,278	42	16,769-	1-	712,046-	43-
02-04	1,283,069	882,649	69	16,769-	1-	899,417-	70-

NORTHWEST NATURAL GAS COMPANY
ACCOUNT 376.11 AND 376.12 MAINS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
03-05	1,227,979	1,264,916	103	1,152	0	1,263,764-	103-
04-06	2,122,302	1,282,756	60		0	1,282,756-	60-
05-07	2,213,240	1,265,600	57		0	1,265,600-	57-
06-08	1,944,519	1,256,188	65		0	1,256,188-	65-
07-09	1,052,749	1,290,423	123	10,433	1	1,279,991-	122-
08-10	885,111	1,537,185	174	34,693	4	1,502,493-	170-
09-11	986,958	1,868,899	189	51,377	5	1,817,521-	184-
10-12	1,994,040	2,066,623	104	52,203	3	2,014,420-	101-
11-13	2,005,772	1,990,333	99	41,754	2	1,948,579-	97-
12-14	2,863,986	2,132,773	74	39,778	1	2,092,995-	73-
13-15	1,808,179	2,424,748	134	35,368	2	2,389,380-	132-
14-16	1,924,250	2,604,317	135	27,563	1	2,576,754-	134-
15-17	830,426	2,318,554	279	25,062	3	2,293,492-	276-
16-18	745,024	2,063,342	277	44,013	6	2,019,329-	271-
17-19	490,778	1,605,372	327	69,401	14	1,535,971-	313-
18-20	389,531	1,095,919	281	81,764	21	1,014,155-	260-
FIVE-YEAR AVERAGE							
16-20	564,016	1,479,713	262	59,987	11	1,419,726-	252-

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1993	2,841,387	396,430	14		0	396,430-	14-
1994	2,500,176	663,273	27		0	663,273-	27-
1995	2,342,406	748,847	32		0	748,847-	32-
1996	2,230,345	741,543	33		0	741,543-	33-
1997	1,902,901	771,714	41		0	771,714-	41-
1998	1,960,026	842,083	43		0	842,083-	43-
1999	1,994,257	896,403	45	105-	0	896,508-	45-
2000	1,617,520	35,662	2		0	35,662-	2-
2001	1,390,478	876,280	63		0	876,280-	63-
2002	1,276,053	52,935	4	108,373-	8-	161,308-	13-
2003	1,166,885	923,195	79	133	0	923,062-	79-
2004	1,204,971	1,334,747	111		0	1,334,747-	111-
2005	1,698,676	1,075,509	63		0	1,075,509-	63-
2006	1,337,959	1,267,508	95		0	1,267,508-	95-
2007	1,674,091	2,072,481	124		0	2,072,481-	124-
2008	986,328	2,488,358	252		0	2,488,358-	252-
2009	430,790	465,616	108		0	465,616-	108-
2010	496,643	1,318,460	265		0	1,318,460-	265-
2011	489,210	1,171,358	239		0	1,171,358-	239-
2012	689,693	2,784,271	404		0	2,784,271-	404-
2013	1,699,245	2,306,446	136		0	2,306,446-	136-
2014	1,630,916	2,933,879	180		0	2,933,879-	180-
2015	1,293,428	2,577,664	199		0	2,577,664-	199-
2016	2,214,181	5,577,376	252		0	5,577,376-	252-
2017	1,162,235	1,248,131	107		0	1,248,131-	107-
2018	1,714,774	2,079,495	121		0	2,079,495-	121-
2019	1,477,866	2,552,534	173		0	2,552,534-	173-
2020	135,451	195,198	144		0	195,198-	144-
TOTAL	41,558,891	40,397,396	97	108,345-	0	40,505,741-	97-

THREE-YEAR MOVING AVERAGES

93-95	2,561,323	602,850	24		0	602,850-	24-
94-96	2,357,642	717,888	30		0	717,888-	30-
95-97	2,158,551	754,035	35		0	754,035-	35-
96-98	2,031,091	785,113	39		0	785,113-	39-
97-99	1,952,395	836,733	43	35-	0	836,768-	43-
98-00	1,857,268	591,383	32	35-	0	591,418-	32-
99-01	1,667,418	602,782	36	35-	0	602,817-	36-
00-02	1,428,017	321,626	23	36,124-	3-	357,750-	25-
01-03	1,277,805	617,470	48	36,080-	3-	653,550-	51-
02-04	1,215,970	770,292	63	36,080-	3-	806,372-	66-

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
03-05	1,356,844	1,111,150	82	44	0	1,111,106-	82-
04-06	1,413,869	1,225,921	87		0	1,225,921-	87-
05-07	1,570,242	1,471,833	94		0	1,471,833-	94-
06-08	1,332,793	1,942,782	146		0	1,942,782-	146-
07-09	1,030,403	1,675,485	163		0	1,675,485-	163-
08-10	637,920	1,424,145	223		0	1,424,145-	223-
09-11	472,214	985,145	209		0	985,145-	209-
10-12	558,515	1,758,030	315		0	1,758,030-	315-
11-13	959,383	2,087,358	218		0	2,087,358-	218-
12-14	1,339,951	2,674,865	200		0	2,674,865-	200-
13-15	1,541,196	2,605,996	169		0	2,605,996-	169-
14-16	1,712,842	3,696,306	216		0	3,696,306-	216-
15-17	1,556,615	3,134,390	201		0	3,134,390-	201-
16-18	1,697,063	2,968,334	175		0	2,968,334-	175-
17-19	1,451,625	1,960,053	135		0	1,960,053-	135-
18-20	1,109,364	1,609,076	145		0	1,609,076-	145-
FIVE-YEAR AVERAGE							
16-20	1,340,901	2,330,547	174		0	2,330,547-	174-

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1993	35,525		0		0		0
1994	75,695		0	25	0	25	0
1995	109,668		0	220	0	220	0
1996	169,183		0	158	0	158	0
1997	187,776		0	6,160	3	6,160	3
1998	234,076		0	16,920	7	16,920	7
1999	237,115		0	6,900	3	6,900	3
2000	182,134		0	1,936	1	1,936	1
2001	147,077		0		0		0
2002	205,198		0		0		0
2003	323,750		0		0		0
2004	293,768		0		0		0
2005	316,926		0		0		0
2006	517,442		0		0		0
2007	865,099		0		0		0
2008	679,498		0		0		0
2009	2,445,908		0		0		0
2010	832,853		0		0		0
2011	387,538		0		0		0
2012	442,790		0		0		0
2013	822,151		0		0		0
2014	839,332		0		0		0
2015	1,126,709		0		0		0
2016	1,315,911		0		0		0
2017	696,854		0		0		0
2018	1,576,280		0		0		0
2019	1,729,669		0		0		0
2020	4,769,124		0	43,305	1	43,305	1
TOTAL	21,565,049		0	75,624	0	75,624	0

THREE-YEAR MOVING AVERAGES

93-95	73,629		0	82	0	82	0
94-96	118,182		0	134	0	134	0
95-97	155,542		0	2,179	1	2,179	1
96-98	197,012		0	7,746	4	7,746	4
97-99	219,656		0	9,993	5	9,993	5
98-00	217,775		0	8,585	4	8,585	4
99-01	188,775		0	2,945	2	2,945	2
00-02	178,136		0	645	0	645	0
01-03	225,342		0		0		0
02-04	274,239		0		0		0

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
03-05	311,481		0		0		0
04-06	376,045		0		0		0
05-07	566,489		0		0		0
06-08	687,346		0		0		0
07-09	1,330,168		0		0		0
08-10	1,319,420		0		0		0
09-11	1,222,100		0		0		0
10-12	554,394		0		0		0
11-13	550,826		0		0		0
12-14	701,424		0		0		0
13-15	929,397		0		0		0
14-16	1,093,984		0		0		0
15-17	1,046,491		0		0		0
16-18	1,196,348		0		0		0
17-19	1,334,268		0		0		0
18-20	2,691,691		0	14,435	1	14,435	1
FIVE-YEAR AVERAGE							
16-20	2,017,568		0	8,661	0	8,661	0

NORTHWEST NATURAL GAS COMPANY
 ACCOUNT 381.10 METERS - ELECTRIC

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2014	507,007		0		0		0
2015							
2016							
2017							
2018							
2019							
2020							
TOTAL	507,007		0		0		0
THREE-YEAR MOVING AVERAGES							
14-16	169,002		0		0		0
15-17							
16-18							
17-19							
18-20							
FIVE-YEAR AVERAGE							
16-20							

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.20 METERS - ERT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2010	631,904		0		0		0
2011	272,574		0		0		0
2012	479,487		0		0		0
2013	500,211		0		0		0
2014	422,728		0		0		0
2015	607,184		0		0		0
2016	552,861		0		0		0
2017	403,962		0		0		0
2018	1,074,843		0		0		0
2019	4,021,547		0		0		0
2020	4,090,445		0		0		0
TOTAL	13,057,746		0		0		0

THREE-YEAR MOVING AVERAGES

10-12	461,322		0		0		0
11-13	417,424		0		0		0
12-14	467,475		0		0		0
13-15	510,041		0		0		0
14-16	527,591		0		0		0
15-17	521,336		0		0		0
16-18	677,222		0		0		0
17-19	1,833,451		0		0		0
18-20	3,062,278		0		0		0

FIVE-YEAR AVERAGE

16-20	2,028,732		0		0		0
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NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1993	46,518	2,598	6		0	2,598-	6-
1994	96,011	9,377	10	1,694	2	7,683-	8-
1995	131,729	3,165	2		0	3,165-	2-
1996	238,906	303	0		0	303-	0
1997	191,607	1,715	1		0	1,715-	1-
1998	328,975	596	0		0	596-	0
1999	370,161	8,471	2	290	0	8,181-	2-
2000	278,986		0	6,715	2	6,715	2
2001	242,395	6,349	3		0	6,349-	3-
2002	329,497	1,602	0		0	1,602-	0
2003	514,135	19,994	4		0	19,994-	4-
2004	480,981	4,365	1		0	4,365-	1-
2005	516,182		0		0		0
2006	813,246		0		0		0
2007	1,549,221		0		0		0
2008	1,077,855		0		0		0
2009	10,496,732		0		0		0
2010	3,633,211		0		0		0
2011	1,646,617		0		0		0
2012	1,809,044		0		0		0
2013	2,227,911		0		0		0
2014	3,182,624		0		0		0
2015	3,438,321		0		0		0
2016	2,975,570		0		0		0
2017	1,694,704		0		0		0
2018	2,778,764		0		0		0
2019	2,692,778		0		0		0
2020	5,030,201		0		0		0
TOTAL	48,812,882	58,535	0	8,699	0	49,836-	0

THREE-YEAR MOVING AVERAGES

93-95	91,419	5,047	6	565	1	4,482-	5-
94-96	155,549	4,282	3	565	0	3,717-	2-
95-97	187,414	1,728	1		0	1,728-	1-
96-98	253,163	871	0		0	871-	0
97-99	296,914	3,594	1	97	0	3,497-	1-
98-00	326,041	3,022	1	2,335	1	687-	0
99-01	297,181	4,940	2	2,335	1	2,605-	1-
00-02	283,626	2,650	1	2,238	1	412-	0
01-03	362,009	9,315	3		0	9,315-	3-
02-04	441,538	8,654	2		0	8,654-	2-

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
03-05	503,766	8,120	2		0	8,120-	2-
04-06	603,470	1,455	0		0	1,455-	0
05-07	959,550		0		0		0
06-08	1,146,774		0		0		0
07-09	4,374,603		0		0		0
08-10	5,069,266		0		0		0
09-11	5,258,853		0		0		0
10-12	2,362,957		0		0		0
11-13	1,894,524		0		0		0
12-14	2,406,526		0		0		0
13-15	2,949,619		0		0		0
14-16	3,198,838		0		0		0
15-17	2,702,865		0		0		0
16-18	2,483,013		0		0		0
17-19	2,388,749		0		0		0
18-20	3,500,581		0		0		0
FIVE-YEAR AVERAGE							
16-20	3,034,403		0		0		0

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.10 METER INSTALLATIONS - ELECTRIC

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2014	518,377		0		0		0
2015							
2016							
2017							
2018							
2019							
2020							
TOTAL	518,377		0		0		0
THREE-YEAR MOVING AVERAGES							
14-16	172,792		0		0		0
15-17							
16-18							
17-19							
18-20							
FIVE-YEAR AVERAGE							
16-20							

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.20 METER INSTALLATIONS - ERT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
2010	116,947		0		0		0
2011	52,987		0		0		0
2012	94,349		0		0		0
2013	101,403		0		0		0
2014	99,995		0		0		0
2015	113,714		0		0		0
2016	103,020		0		0		0
2017	74,826		0		0		0
2018	125,764		0		0		0
2019	197,054		0		0		0
2020	377,910		0		0		0
TOTAL	1,457,969		0		0		0

THREE-YEAR MOVING AVERAGES

10-12	88,094		0		0		0
11-13	82,913		0		0		0
12-14	98,582		0		0		0
13-15	105,037		0		0		0
14-16	105,576		0		0		0
15-17	97,187		0		0		0
16-18	101,203		0		0		0
17-19	132,548		0		0		0
18-20	233,576		0		0		0

FIVE-YEAR AVERAGE

16-20	175,715		0		0		0
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NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1993		12,158				12,158-	
1994	723	155,281		50	7	155,231-	
1995		12,056				12,056-	
1996	374,465		0		0		0
1997	43,454	6,063	14		0	6,063-	14-
1998							
1999							
2000	125,000		0		0		0
2001	728,234		0		0		0
2002							
2003	6,013		0		0		0
2004							
2005	8,335		0		0		0
2006							
2007							
2008							
2009	2,852		0		0		0
2010							
2011							
2012	10,603		0		0		0
2013	649,588		0		0		0
2014	57,511		0		0		0
2015							
2016							
2017							
2018							
2019							
2020	231,371		0		0		0
TOTAL	2,238,148	185,558	8	50	0	185,508-	8-

THREE-YEAR MOVING AVERAGES

93-95	241	59,832		17	7	59,815-	
94-96	125,063	55,779	45	17	0	55,762-	45-
95-97	139,306	6,040	4		0	6,040-	4-
96-98	139,306	2,021	1		0	2,021-	1-
97-99	14,485	2,021	14		0	2,021-	14-
98-00	41,667		0		0		0
99-01	284,411		0		0		0
00-02	284,411		0		0		0
01-03	244,749		0		0		0
02-04	2,004		0		0		0

NORTHWEST NATURAL GAS COMPANY

ACCOUNTS 390.00 AND 390.10 STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
03-05	4,783		0		0		0
04-06	2,778		0		0		0
05-07	2,778		0		0		0
06-08							
07-09	951		0		0		0
08-10	951		0		0		0
09-11	951		0		0		0
10-12	3,534		0		0		0
11-13	220,064		0		0		0
12-14	239,234		0		0		0
13-15	235,700		0		0		0
14-16	19,170		0		0		0
15-17							
16-18							
17-19							
18-20	77,124		0		0		0
FIVE-YEAR AVERAGE							
16-20	46,274		0		0		0

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1996	3,663,578		0		0		0
1997	1,147,124		0		0		0
1998	643,102		0	194,772	30	194,772	30
1999	1,082,085		0	254,777	24	254,777	24
2000	785,471		0	152,200	19	152,200	19
2001	755,493		0	272,108	36	272,108	36
2002	1,093,048		0	277,660	25	277,660	25
2003	1,374,444		0	282,314	21	282,314	21
2004	1,197,018		0	346,555	29	346,555	29
2005	2,326,071		0	242,308	10	242,308	10
2006	1,212,955		0	218,615	18	218,615	18
2007	1,390,528		0	198,400	14	198,400	14
2008	1,213,420		0	132,689	11	132,689	11
2009	1,806,465		0	116,482	6	116,482	6
2010	2,718,582		0	206,572	8	206,572	8
2011	2,232,500		0	154,173	7	154,173	7
2012	1,908,460		0	240,524	13	240,524	13
2013	1,815,857		0	150,375	8	150,375	8
2014	943,871		0	83,811	9	83,811	9
2015	1,390,921		0	234,987	17	234,987	17
2016	2,350,445		0	328,690	14	328,690	14
2017	1,737,627		0	223,715	13	223,715	13
2018	1,541,208		0	251,821	16	251,821	16
2019	2,256,423		0	342,064	15	342,064	15
2020	1,534,186		0	350,318	23	350,318	23
TOTAL	40,120,883		0	5,255,930	13	5,255,930	13

THREE-YEAR MOVING AVERAGES

96-98	1,817,935		0	64,924	4	64,924	4
97-99	957,437		0	149,850	16	149,850	16
98-00	836,886		0	200,583	24	200,583	24
99-01	874,350		0	226,362	26	226,362	26
00-02	878,004		0	233,989	27	233,989	27
01-03	1,074,329		0	277,361	26	277,361	26
02-04	1,221,503		0	302,176	25	302,176	25
03-05	1,632,511		0	290,392	18	290,392	18
04-06	1,578,681		0	269,159	17	269,159	17
05-07	1,643,185		0	219,775	13	219,775	13
06-08	1,272,301		0	183,235	14	183,235	14
07-09	1,470,138		0	149,190	10	149,190	10
08-10	1,912,822		0	151,914	8	151,914	8

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
09-11	2,252,516		0	159,076	7	159,076	7
10-12	2,286,514		0	200,423	9	200,423	9
11-13	1,985,606		0	181,691	9	181,691	9
12-14	1,556,063		0	158,237	10	158,237	10
13-15	1,383,550		0	156,391	11	156,391	11
14-16	1,561,746		0	215,829	14	215,829	14
15-17	1,826,331		0	262,464	14	262,464	14
16-18	1,876,427		0	268,075	14	268,075	14
17-19	1,845,086		0	272,533	15	272,533	15
18-20	1,777,272		0	314,734	18	314,734	18
FIVE-YEAR AVERAGE							
16-20	1,883,978		0	299,322	16	299,322	16

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL		GROSS SALVAGE		NET SALVAGE	
		AMOUNT	PCT	AMOUNT	PCT	AMOUNT	PCT
1995	520,485		0		0		0
1996	75,190		0		0		0
1997	30,348		0		0		0
1998	63,975		0	19,797	31	19,797	31
1999	10,223		0	10,646	104	10,646	104
2000	104,702		0	26,730	26	26,730	26
2001	189,458		0	14,283	8	14,283	8
2002	190,349		0	29,311	15	29,311	15
2003	102,476		0	16,777	16	16,777	16
2004	302,574		0	14,825	5	14,825	5
2005	872,364		0	186,761	21	186,761	21
2006	504,138		0	20,352	4	20,352	4
2007	251,001		0	59,528	24	59,528	24
2008	114,341		0	15,286	13	15,286	13
2009	139,361		0	4,647	3	4,647	3
2010	240,789		0	46,089	19	46,089	19
2011	498,971		0	119,294	24	119,294	24
2012	365,158		0	92,512	25	92,512	25
2013	502,213		0	214,520	43	214,520	43
2014	255,426		0	38,520	15	38,520	15
2015	581,404		0	150,376	26	150,376	26
2016	710,358		0	170,180	24	170,180	24
2017	441,739		0	129,938	29	129,938	29
2018	549,609		0	136,469	25	136,469	25
2019	598,755		0	202,211	34	202,211	34
2020	204,308		0	34,185	17	34,185	17
TOTAL	8,419,716		0	1,753,237	21	1,753,237	21

THREE-YEAR MOVING AVERAGES

95-97	208,674		0		0		0
96-98	56,504		0	6,599	12	6,599	12
97-99	34,849		0	10,148	29	10,148	29
98-00	59,633		0	19,058	32	19,058	32
99-01	101,461		0	17,220	17	17,220	17
00-02	161,503		0	23,441	15	23,441	15
01-03	160,761		0	20,124	13	20,124	13
02-04	198,466		0	20,304	10	20,304	10
03-05	425,805		0	72,788	17	72,788	17
04-06	559,692		0	73,979	13	73,979	13
05-07	542,501		0	88,880	16	88,880	16
06-08	289,827		0	31,722	11	31,722	11

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
07-09	168,235		0	26,487	16	26,487	16
08-10	164,830		0	22,007	13	22,007	13
09-11	293,040		0	56,677	19	56,677	19
10-12	368,306		0	85,965	23	85,965	23
11-13	455,447		0	142,109	31	142,109	31
12-14	374,266		0	115,184	31	115,184	31
13-15	446,348		0	134,472	30	134,472	30
14-16	515,729		0	119,692	23	119,692	23
15-17	577,834		0	150,165	26	150,165	26
16-18	567,235		0	145,529	26	145,529	26
17-19	530,034		0	156,206	29	156,206	29
18-20	450,891		0	124,288	28	124,288	28
FIVE-YEAR AVERAGE							
16-20	500,954		0	134,597	27	134,597	27

PART IX. DETAILED DEPRECIATION CALCULATIONS

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.10 MISCELLANEOUS INTANGIBLE PLANT - SOFTWARE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2000	502,539.37	502,539	502,539			
2001	558,085.41	558,085	558,085			
2002	531,359.77	531,360	531,360			
2003	2,405,496.78	2,405,497	2,405,497			
2004	277,949.84	277,950	277,950			
2005	2,771,779.73	2,771,780	2,771,780			
2006	714,428.00	690,616	612,211	102,217	0.50	102,217
2007	1,771,996.48	1,594,797	1,413,742	358,254	1.50	238,836
2008	6,261,749.49	5,218,104	4,625,701	1,636,048	2.50	654,419
2009	13,177,131.70	10,102,512	8,955,590	4,221,542	3.50	1,206,155
2010	2,523,983.52	1,766,788	1,566,207	957,777	4.50	212,839
2011	6,304,477.25	3,992,815	3,539,517	2,764,960	5.50	502,720
2012	4,178,632.41	2,367,906	2,099,081	2,079,551	6.50	319,931
2013	6,072,599.01	3,036,300	2,691,594	3,381,005	7.50	450,801
2014	4,615,702.91	2,000,123	1,773,052	2,842,651	8.50	334,430
2015	4,684,033.68	1,717,495	1,522,511	3,161,523	9.50	332,792
2016	5,542,895.31	1,662,869	1,474,086	4,068,809	10.50	387,506
2017	5,314,541.47	1,240,042	1,099,262	4,215,279	11.50	366,546
2018	12,198,059.13	2,033,051	1,802,242	10,395,817	12.50	831,665
2019	9,600,094.98	960,009	851,021	8,749,074	13.50	648,080
2020	40,770,625.79	1,358,885	1,204,613	39,566,013	14.50	2,728,691
	130,778,162.03	46,789,523	42,277,641	88,500,521		9,317,628
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						9.5 7.12

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.20 MISCELLANEOUS INTANGIBLE PLANT - CUSTOMER INFORMATION SYSTEM

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
1995	639,469.00	639,469	639,469			
1996	369,842.00	369,842	369,842			
1997	27,346,787.00	27,346,787	27,346,787			
1998	450,570.00	450,570	450,570			
1999	150,721.00	150,721	150,721			
2004	415,255.38	415,255	415,255			
2005	468,752.58	468,753	468,753			
2006	448,313.73	433,371	448,314			
2007	472,095.25	424,886	472,095			
2008	190,259.31	158,549	190,259			
2009	252,423.58	193,526	252,424			
2010	56,921.16	39,845	56,921			
2011	287,298.57	181,955	287,299			
2012	614,886.18	348,438	614,886			
2013	246,002.37	123,001	234,652	11,350	7.50	1,513
	32,409,597.11	31,744,968	32,398,247	11,350		1,513
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						7.5 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.30 MISCELLANEOUS INTANGIBLE PLANT - INDUSTRIAL AND COMMERCIAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
1998	1,427,352.00	1,427,352	1,427,352			
1999	2,707,150.00	2,707,150	2,707,150			
2000	12,449.00	12,449	12,449			
	4,146,951.00	4,146,951	4,146,951			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 303.40 MISCELLANEOUS INTANGIBLE PLANT - CRMS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	4,264,625.00	426,462	455,690	3,808,935	4.50	846,430
	4,264,625.00	426,462	455,690	3,808,935		846,430
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					4.5	19.85

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 305.11 STRUCTURES AND IMPROVEMENTS - GAS PRODUCTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-S1						
NET SALVAGE PERCENT.. -5						
1963	8,320.00	7,323	8,736			
	8,320.00	7,323	8,736			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 305.17 STRUCTURES AND IMPROVEMENTS - MIXING STATION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-S1						
NET SALVAGE PERCENT.. -5						
1956	44,564.00	41,750	46,792			
1958	2,023.00	1,863	4,454	2,330-		
	46,587.00	43,613	51,246	2,330-		
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 305.50 STRUCTURES AND IMPROVEMENTS - OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 40-S1						
NET SALVAGE PERCENT.. -5						
1984	13,156.00	8,858	13,814			
	13,156.00	8,858	13,814			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 311.70 LIQUEFIED PETROLEUM GAS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L0.5						
NET SALVAGE PERCENT.. -5						
1963	403.00	344	423			
1964	224.00	190	235			
1973	3,406.00	2,713	7,408	3,832-		
	4,033.00	3,247	8,066	3,831-		
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 311.80 LIQUEFIED PETROLEUM GAS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L0.5						
NET SALVAGE PERCENT.. -5						
1975	4,209.00	3,299	6,585	2,166-		
	4,209.00	3,299	6,585	2,166-		
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 318.30 LIGHT OIL REFINING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S2.5						
NET SALVAGE PERCENT.. -5						
1926	6,740.00	7,077	7,077			
1941	65,282.00	65,621	68,546			
1943	3,000.00	2,989	3,150			
1947	11,000.00	10,767	11,550			
1950	14,536.00	14,035	15,263			
1951	28,111.00	27,017	29,517			
1952	15,110.00	14,455	15,866			
1953	1.00	1	1			
1956	163.00	153	171			
1957	953.00	889	1,000			
	144,896.00	143,004	152,141			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 318.50 TAR PROCESSING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S2.5						
NET SALVAGE PERCENT.. -5						
1913	4,028.00	4,229	4,229			
1923	8,294.00	8,709	8,709			
1940	23,539.00	23,760	24,716			
1943	48,609.00	48,431	51,039			
1944	8,137.00	8,071	8,544			
1947	46,907.00	45,914	49,252			
1948	6,861.00	6,685	7,204			
1949	591.00	573	621			
1952	264.00	253	277			
1953	89,945.00	85,628	94,442			
1954	4,566.00	4,327	4,794			
1955	1,810.00	1,707	1,902			
	243,551.00	238,287	255,729			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 319.00 GAS MIXING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-R0.5						
NET SALVAGE PERCENT.. -5						
1956	145,043.00	152,295	152,295			
1957	15,520.00	16,296	16,296			
1958	5,736.00	6,023	6,023			
1959	217.00	228	228			
1960	277.00	291	291			
1962	1,667.00	1,707	1,750			
1964	921.00	913	967			
1967	89.00	84	93			
1980	12,421.00	9,434	13,042			
1981	3,557.00	2,649	3,735			
	185,448.00	189,920	194,720			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 350.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R4						
NET SALVAGE PERCENT.. 0						
1989	40,841.00	18,046	18,469	22,372	39.07	573
1993	5,264.00	2,041	2,089	3,175	42.86	74
1994	400.00	150	154	246	43.81	6
1997	185.00	62	63	122	46.71	3
1998	628.00	200	205	423	47.68	9
2001	3,804.00	1,053	1,078	2,726	50.62	54
2007	58,502.94	11,250	11,513	46,990	56.54	831
	109,624.94	32,802	33,571	76,054		1,550
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						49.1 1.41

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 351.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. 0						
1989	2,101,010.00	1,014,094	1,215,081	885,929	31.04	28,542
1990	45,791.00	21,476	25,732	20,059	31.86	630
1991	275,498.00	125,398	150,251	125,247	32.69	3,831
1992	41,905.00	18,487	22,151	19,754	33.53	589
1993	3,226.00	1,378	1,651	1,575	34.38	46
1994	13,262.00	5,475	6,560	6,702	35.23	190
1995	35,648.00	14,206	17,022	18,626	36.09	516
1998	2,475,159.00	877,865	1,051,852	1,423,307	38.72	36,759
1999	4,963.00	1,687	2,021	2,942	39.61	74
2000	32,811.00	10,658	12,770	20,041	40.51	495
2001	884,241.00	273,964	328,263	555,978	41.41	13,426
2002	242,899.00	71,575	85,761	157,138	42.32	3,713
2003	16,898.54	4,720	5,655	11,244	43.24	260
2004	74,234.66	19,598	23,482	50,753	44.16	1,149
2005	123.98	31	37	87	45.08	2
2008	290,921.56	58,670	70,298	220,624	47.90	4,606
2009	3,834.31	713	854	2,980	48.85	61
2010	12,998.94	2,210	2,648	10,351	49.80	208
2012	159,638.62	22,057	26,429	133,210	51.71	2,576
2014	426,776.29	45,238	54,204	372,572	53.64	6,946
2015	66,404.73	5,955	7,135	59,270	54.62	1,085
2017	173,824.60	9,965	11,940	161,885	56.56	2,862
2018	1,252,081.82	51,335	61,510	1,190,572	57.54	20,691
	8,634,151.05	2,656,755	3,183,307	5,450,844		129,257

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 42.2 1.50

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.00 WELLS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S3						
NET SALVAGE PERCENT.. 0						
1989	8,933,762.00	5,333,456	6,083,879	2,849,883	20.15	141,433
1990	536,082.00	311,785	355,654	180,428	20.92	8,625
1991	2,005,008.00	1,134,434	1,294,050	710,958	21.71	32,748
1992	150,577.00	82,757	94,401	56,176	22.52	2,494
1993	182,892.00	97,481	111,197	71,695	23.35	3,070
1994	2,358.00	1,216	1,387	971	24.21	40
1998	6,327,524.00	2,810,686	3,206,153	3,121,371	27.79	112,320
2001	200,085.00	77,513	88,419	111,666	30.63	3,646
2003	44,802.88	15,627	17,826	26,977	32.56	829
2004	5,127,030.63	1,687,818	1,925,296	3,201,735	33.54	95,460
2005	3,853,067.17	1,192,139	1,359,874	2,493,193	34.53	72,204
2007	8,775,470.65	2,367,622	2,700,749	6,074,722	36.51	166,385
2009	831,368.14	191,215	218,119	613,249	38.50	15,929
2012	17,500.00	2,975	3,394	14,106	41.50	340
2018	3,328,509.28	166,425	189,841	3,138,668	47.50	66,077
2019	3,488,288.60	104,649	119,373	3,368,916	48.50	69,462
2020	4,537,878.26	45,379	51,764	4,486,114	49.50	90,629
	48,342,203.61	15,623,177	17,821,376	30,520,828		881,691
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						34.6 1.82

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.10 STORAGE LEASEHOLDS AND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S2.5						
NET SALVAGE PERCENT.. 0						
1989	1,210,800.00	648,553	734,410	476,390	25.54	18,653
1993	1.00			1	28.73	
1996	237,300.00	102,298	115,841	121,459	31.29	3,882
1997	1,589,979.00	659,984	747,355	842,624	32.17	26,193
1998	492,327.00	196,394	222,393	269,934	33.06	8,165
1999	5,093.00	1,947	2,205	2,888	33.97	85
2002	2,991.00	992	1,123	1,868	36.76	51
2004	1,020.52	303	343	678	38.66	18
2014	400,000.00	47,272	53,530	346,470	48.50	7,144
	3,939,511.52	1,657,743	1,877,200	2,062,312		64,191
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					32.1	1.63

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.20 RESERVOIRS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S2.5						
NET SALVAGE PERCENT.. 0						
1996	1,679,184.00	723,879	773,118	906,066	31.29	28,957
1998	1,999,907.00	797,783	852,050	1,147,857	33.06	34,720
1999	6,003.00	2,295	2,451	3,552	33.97	105
2000	476,341.00	174,169	186,016	290,325	34.89	8,321
2002	2,997,731.00	994,168	1,061,793	1,935,938	36.76	52,664
2004	1,212,371.25	360,183	384,683	827,688	38.66	21,409
2005	2,445,017.29	683,725	730,233	1,714,784	39.62	43,281
2012	17,500.00	2,701	2,885	14,615	46.51	314
	10,834,054.54	3,738,903	3,993,229	6,840,826		189,771
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						36.0 1.75

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 352.30 NONRECOVERABLE GAS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R4						
NET SALVAGE PERCENT.. 0						
1989	4,057,952.00	2,072,274	2,579,840	1,478,112	29.36	50,344
1993	1.00			1	33.03	
1996	2,255,000.00	907,638	1,129,947	1,125,053	35.85	31,382
1998	62,449.00	23,148	28,818	33,631	37.76	891
2004	65,487.82	17,900	22,284	43,204	43.60	991
	6,440,889.82	3,020,960	3,760,889	2,680,001		83,608
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					32.1	1.30

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 353.00 LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S2.5						
NET SALVAGE PERCENT.. -15						
1989	2,521,353.00	1,553,118	1,609,306	1,290,250	25.54	50,519
1991	17,489.00	10,202	10,571	9,541	27.10	352
1993	1.00	1	1			
1998	3,853,629.00	1,767,839	1,831,795	2,599,878	33.06	78,641
1999	52,862.00	23,244	24,085	36,706	33.97	1,081
2003	7,841.06	2,835	2,938	6,079	37.71	161
2004	684,275.05	233,785	242,243	544,673	38.66	14,089
2005	504,360.29	162,195	168,063	411,951	39.62	10,398
2007	560,153.49	157,295	162,985	481,192	41.57	11,575
2018	1,333,513.81	69,699	72,221	1,461,320	52.50	27,835
2019	1,135,290.63	35,603	36,891	1,268,693	53.50	23,714
2020	111,673.66	1,167	1,209	127,216	54.50	2,334
	10,782,441.99	4,016,983	4,162,308	8,237,500		220,699
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.3 2.05

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.10 COMPRESSOR STATION EQUIPMENT - TURBINE 1

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
1989	3,547,382.00	2,207,039	2,642,985	1,259,135	21.72	57,971
1990	110,946.00	67,147	80,410	41,631	22.49	1,851
1991	139,186.00	81,880	98,053	55,052	23.26	2,367
1992	41,746.00	23,833	28,541	17,380	24.05	723
1993	3,141.00	1,738	2,081	1,374	24.85	55
1994	7,648.00	4,095	4,904	3,509	25.66	137
1995	116,370.00	60,214	72,108	55,899	26.48	2,111
1996	3,136.00	1,565	1,874	1,576	27.31	58
1997	19,089.09	9,176	10,988	10,010	28.15	356
1998	166,055.57	76,718	91,872	90,789	29.00	3,131
	4,154,699.66	2,533,405	3,033,816	1,536,354		68,760
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						22.3 1.65

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.20 COMPRESSOR STATION EQUIPMENT - TURBINE 2

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
1989	4,154,699.00	2,584,888	3,095,469	1,474,700	21.72	67,896
	4,154,699.00	2,584,888	3,095,469	1,474,700		67,896
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						21.7 1.63

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.30 COMPRESSOR STATION EQUIPMENT - TURBINE 3

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
1998	8,502,780.91	3,928,285	4,704,220	4,648,839	29.00	160,305
1999	94,722.00	41,969	50,259	53,935	29.86	1,806
2000	3,218,557.00	1,364,475	1,633,993	1,906,420	30.73	62,038
2001	1,699,551.00	687,978	823,871	1,045,635	31.60	33,090
2002	122,405.06	47,153	56,467	78,179	32.49	2,406
2008	131,264.60	34,769	41,637	102,754	37.96	2,707
2009	69,541.41	16,997	20,354	56,142	38.89	1,444
2010	20,130.52	4,500	5,389	16,755	39.84	421
2014	781,561.86	109,012	130,545	729,173	43.66	16,701
	14,640,514.36	6,235,138	7,466,735	8,637,831		280,918
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.7 1.92

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.40 COMPRESSOR STATION EQUIPMENT - TURBINE 4

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
2000	4,556,230.32	1,931,568	2,313,101	2,698,752	30.73	87,821
2001	6,176,092.83	2,500,082	2,993,911	3,799,791	31.60	120,247
2004	2,147,487.86	742,687	889,387	1,472,850	34.28	42,965
2012	17,500.00	3,180	3,808	15,442	41.74	370
2013	767,468.75	123,424	147,803	696,413	42.69	16,313
	13,664,779.76	5,300,941	6,348,010	8,683,248		267,716
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						32.4 1.96

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.50 COMPRESSOR STATION EQUIPMENT - TURBINE 5

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
2001	1,386,150.00	561,114	671,948	852,817	31.60	26,988
2003	3,978.82	1,455	1,742	2,635	33.38	79
2004	29,546.20	10,218	12,236	20,265	34.28	591
2011	1,167,361.91	236,788	283,560	1,000,538	40.78	24,535
2016	42,248.74	4,099	4,909	41,565	45.59	912
2017	145,612.11	10,988	13,158	147,015	46.57	3,157
2020	779,535.40	8,403	10,063	847,426	49.51	17,116
	3,554,433.18	833,065	997,616	2,912,260		73,378
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						39.7 2.06

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 354.60 COMPRESSOR STATION EQUIPMENT - TURBINE 6

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. -10						
2015	260,041.78	30,779	36,859	249,187	44.62	5,585
	260,041.78	30,779	36,859	249,187		5,585
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.6 2.15

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 355.00 MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S2						
NET SALVAGE PERCENT.. -10						
1989	3,473,015.20	2,295,590	2,580,597	1,239,720	17.96	69,027
1990	66,949.00	43,270	48,642	25,002	18.56	1,347
1991	21,410.00	13,513	15,191	8,360	19.18	436
1992	17,819.00	10,968	12,330	7,271	19.82	367
1993	1,785.00	1,070	1,203	760	20.48	37
1994	35.00	20	22	16	21.15	1
1995	9,858.00	5,578	6,271	4,573	21.85	209
1996	15,372.00	8,428	9,474	7,435	22.57	329
1998	1,090,120.00	557,992	627,269	571,863	24.06	23,768
1999	238,641.00	117,602	132,203	130,302	24.84	5,246
2000	1,704,161.55	806,481	906,609	967,969	25.64	37,752
2001	48,850.00	22,151	24,901	28,834	26.45	1,090
2002	230,507.45	99,790	112,179	141,379	27.29	5,181
2003	0.07					
2004	830,627.56	324,461	364,744	548,946	29.02	18,916
2005	1,791,619.55	660,862	742,911	1,227,871	29.91	41,052
2006	143,130.10	49,612	55,772	101,671	30.82	3,299
2007	4,611,549.49	1,494,774	1,680,355	3,392,349	31.74	106,879
2008	207,002.45	62,340	70,080	157,623	32.68	4,823
2011	435,517.72	100,499	112,976	366,093	35.56	10,295
2012	17,500.00	3,619	4,068	15,182	36.54	415
2015	10,072.05	1,352	1,520	9,559	39.51	242
2016	133,079.00	14,639	16,457	129,930	40.50	3,208
2017	173,875.08	14,876	16,723	174,540	41.50	4,206
2018	369,594.51	22,588	25,392	381,162	42.50	8,969
2019	76,345.99	2,799	3,147	80,834	43.50	1,858
2020	2,953,546.84	36,095	40,576	3,208,326	44.50	72,097
	18,671,983.61	6,770,969	7,611,612	12,927,570		421,049
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.7 2.25

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 356.00 PURIFICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S2.5						
NET SALVAGE PERCENT.. -5						
1989	139,942.00	91,821	59,398	87,541	16.88	5,186
1990	12,815.00	8,214	5,314	8,142	17.53	464
1992	15,940.00	9,711	6,282	10,455	18.89	553
1993	2,878.00	1,705	1,103	1,919	19.61	98
1995	73,881.00	41,201	26,652	50,923	21.10	2,413
1996	48,826.00	26,340	17,039	34,228	21.88	1,564
1998	3,081.00	1,546	1,000	2,235	23.50	95
2018	66,401.79	3,874	2,506	67,216	42.50	1,582
2020	27,819,071.40	324,523	209,929	29,000,096	44.50	651,688
	28,182,836.19	508,935	329,223	29,262,755		663,643
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.1 2.35

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 357.00 OTHER EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-R4						
NET SALVAGE PERCENT.. 0						
1989	76,057.00	60,780	76,057			
1992	5,980.00	4,439	5,904	76	9.02	8
1998	564,221.00	345,467	459,450	104,771	13.57	7,721
1999	56,329.00	33,138	44,072	12,257	14.41	851
2008	629,441.85	222,464	295,863	333,579	22.63	14,741
2009	63,256.08	20,603	27,401	35,855	23.60	1,519
2018	1,027,537.43	73,397	97,613	929,924	32.50	28,613
2020	2,237,165.36	31,969	42,517	2,194,648	34.50	63,613
	4,659,987.72	792,257	1,048,877	3,611,111		117,066
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.8 2.51

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -5						
1969	59,412.00	48,555	54,431	7,952	12.30	647
1970	26,089.00	21,197	23,762	3,631	12.46	291
1974	183.00	145	163	30	13.03	2
1975	8,525.00	6,718	7,531	1,420	13.16	108
1976	14,557.00	11,396	12,775	2,510	13.28	189
1978	9,671.00	7,469	8,373	1,782	13.51	132
1981	1,017.00	768	861	207	13.81	15
1982	46,738.00	35,036	39,276	9,799	13.90	705
1985	20,155.00	14,733	16,516	4,647	14.14	329
1986	6,343.00	4,594	5,150	1,510	14.22	106
1987	6,731.00	4,828	5,412	1,655	14.29	116
1988	30,340.00	21,549	24,157	7,700	14.35	537
1991	27,819.00	19,114	21,427	7,783	14.53	536
1992	4,998.00	3,393	3,804	1,444	14.58	99
1993	42,483.00	28,470	31,915	12,692	14.63	868
1994	37,310.00	24,664	27,649	11,527	14.68	785
1995	45,530.00	29,670	33,260	14,546	14.72	988
1996	20,875.00	13,390	15,010	6,908	14.77	468
1997	22,876.00	14,434	16,181	7,839	14.81	529
2000	10,951.00	6,529	7,319	4,179	14.92	280
2001	30,731.00	17,928	20,098	12,170	14.95	814
2002	60,440.00	34,434	38,601	24,861	14.98	1,660
2004	6,103.00	3,294	3,693	2,716	15.04	181
2005	185,610.40	97,122	108,875	86,016	15.07	5,708
2006	961,819.17	486,756	545,660	464,250	15.09	30,765
2007	432,192.31	210,573	236,055	217,747	15.12	14,401
2008	892,383.17	416,975	467,435	469,567	15.14	31,015
2009	1,097,712.30	489,474	548,707	603,891	15.16	39,834
2010	113,303.89	47,897	53,693	65,276	15.18	4,300
2011	221,064.76	87,933	98,574	133,544	15.20	8,786
2012	71,983.47	26,694	29,924	45,658	15.22	3,000
2015	53,824.55	14,744	16,528	39,988	15.27	2,619
2016	484,828.69	113,960	127,751	381,319	15.29	24,939
2017	14,238.78	2,744	3,076	11,875	15.30	776
2018	5,604,150.24	814,630	913,212	4,971,146	15.31	324,699
2020	43,051.42	1,399	1,568	43,636	15.34	2,845
	10,716,040.15	3,183,209	3,568,422	7,683,420		504,072

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 60-R2.5						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
1965	1,500.00	1,198	1,280	295	13.97	21
1974	605,426.00	448,751	479,417	156,280	16.43	9,512
1977	711,173.00	512,713	547,750	198,981	17.13	11,616
1978	31,895.00	22,771	24,327	9,163	17.35	528
1979	16,085.00	11,374	12,151	4,738	17.55	270
1982	13,954.00	9,566	10,220	4,432	18.12	245
1984	270.00	181	193	90	18.46	5
1986	2,983.00	1,953	2,086	1,046	18.77	56
1987	2,143.00	1,386	1,481	769	18.91	41
1988	17,175.00	10,967	11,716	6,317	19.04	332
1989	83,518.00	52,613	56,208	31,485	19.17	1,642
1990	24,328.00	15,114	16,147	9,398	19.29	487
1991	59,235.00	36,257	38,735	23,462	19.41	1,209
1992	141,822.00	85,488	91,330	57,583	19.52	2,950
1993	26,244.00	15,562	16,625	10,931	19.63	557
1994	214,182.00	124,844	133,375	91,516	19.73	4,638
1995	37,880.00	21,693	23,175	16,599	19.82	837
1996	89,930.00	50,531	53,984	40,442	19.91	2,031
1997	169,271.00	93,179	99,547	78,188	20.00	3,909
1998	67,057.09	36,135	38,604	31,806	20.08	1,584
1999	164,083.00	86,399	92,303	79,984	20.16	3,967
2000	31,277.00	16,077	17,176	15,665	20.23	774
2001	48,710.00	24,386	26,052	25,093	20.30	1,236
2002	66,987.31	32,593	34,820	35,516	20.37	1,744
2004	12,320.82	5,623	6,007	6,930	20.50	338
2005	10,028.06	4,415	4,717	5,813	20.55	283
2006	47,617.22	20,147	21,524	28,474	20.61	1,382
2008	366,599.53	141,512	151,183	233,747	20.71	11,287
2009	253,147.32	92,551	98,876	166,929	20.76	8,041
2010	636,411.98	219,147	234,123	434,110	20.80	20,871
2011	60,719.61	19,526	20,860	42,895	20.84	2,058
2012	31,512.46	9,371	10,011	23,077	20.88	1,105
2014	53,287.83	12,962	13,848	42,104	20.96	2,009
2016	3,063,049.39	555,663	593,635	2,622,567	21.02	124,765
2017	2,859,549.08	419,633	448,309	2,554,217	21.05	121,340
2018	1,907,457.63	208,535	222,786	1,780,045	21.08	84,442
2019	167,922.77	11,478	12,262	164,057	21.11	7,772
2020	27,918.13	664	709	28,605	21.13	1,354
	12,124,670.23	3,432,958	3,667,556	9,063,348		437,238

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 361.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTHER						
SURVIVOR CURVE.. IOWA 60-R2.5						
NET SALVAGE PERCENT.. -5						
1963	4,009.00	3,120	3,511	698	15.53	45
1968	527.00	386	434	119	18.18	7
1975	1,118.00	735	827	347	22.44	15
1999	21,103.00	7,168	8,066	14,092	40.59	347
	26,757.00	11,409	12,839	15,256		414
	22,867,467.38	6,627,576	7,248,817	16,762,024		941,724
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.8 4.12

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 362.00 GAS HOLDERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 60-R3						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -20						
1969	1,720,509.00	1,628,276	1,664,801	399,809	11.96	33,429
1974	815.00	747	764	214	12.87	17
1983	969.00	830	849	314	14.02	22
1991	1,017.00	804	822	398	14.62	27
1993	18,991.00	14,640	14,968	7,821	14.74	531
2006	362,872.63	210,861	215,591	219,856	15.22	14,445
2009	488,646.40	250,300	255,915	330,461	15.28	21,627
2015	53,824.55	16,922	17,302	47,288	15.38	3,075
2016	1,686,933.32	456,423	466,661	1,557,659	15.39	101,212
2017	221,486.45	48,989	50,088	215,696	15.40	14,006
	4,556,064.35	2,628,792	2,687,761	2,779,516		188,391
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 60-R3						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -20						
1977	5,551,294.00	4,646,366	5,959,429	702,124	16.88	41,595
1978	10,302.00	8,536	10,948	1,414	17.14	82
1994	72,915.00	49,033	62,890	24,608	19.91	1,236
1996	138,492.00	89,713	115,066	51,125	20.11	2,542
2006	900.36	439	563	517	20.84	25
2017	153,200.46	25,797	33,087	150,753	21.26	7,091
	5,927,103.82	4,819,884	6,181,983	930,542		52,571
OTHER						
SURVIVOR CURVE.. IOWA 60-R3						
NET SALVAGE PERCENT.. -20						
2003	1,600.14	536	1,266	654	43.24	15
	1,600.14	536	1,266	654		15
	10,484,768.31	7,449,212	8,871,010	3,710,712		240,977
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.4 2.30

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.10 LIQUEFACTION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 55-R2						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -5						
1969	828,857.00	673,116	870,300			
1970	15,188.00	12,266	15,947			
1971	1,613.00	1,295	1,694			
1972	4,261.00	3,401	4,474			
1974	1,957.00	1,543	2,055			
1975	268.00	210	281			
1976	25,955.00	20,207	27,253			
1980	100,679.00	76,218	105,713			
1986	715.00	515	751			
1987	68,778.00	49,058	72,138	79	13.86	6
1990	86,886.00	60,061	88,317	2,913	14.08	207
1991	51,422.00	35,133	51,661	2,332	14.15	165
1992	77,450.00	52,287	76,886	4,437	14.21	312
1994	15,589.00	10,249	15,071	1,298	14.33	91
1995	2,211.00	1,433	2,107	214	14.39	15
1996	6,143.00	3,918	5,761	689	14.45	48
1997	132,937.00	83,410	122,651	16,933	14.50	1,168
1998	157,516.00	97,105	142,788	22,603	14.55	1,553
1999	78,997.00	47,807	70,298	12,649	14.59	867
2000	88,122.00	52,248	76,828	15,700	14.64	1,072
2001	284,485.00	165,019	242,653	56,056	14.68	3,819
2002	44,801.00	25,382	37,323	9,718	14.72	660
2003	131,666.14	72,700	106,902	31,347	14.76	2,124
2004	219,028.75	117,573	172,886	57,094	14.80	3,858
2005	46,627.74	24,280	35,703	13,256	14.83	894
2006	127,298.03	64,046	94,177	39,486	14.87	2,655
2007	8,445.29	4,094	6,020	2,848	14.90	191
2009	70,412.91	31,229	45,921	28,013	14.96	1,873
2012	72,983.52	26,932	39,602	37,030	15.04	2,462
2015	53,824.55	14,696	21,610	34,906	15.11	2,310
2016	402,787.76	94,444	138,876	284,052	15.13	18,774
2017	111,506.66	21,408	31,479	85,603	15.15	5,650
2019	55,575.58	5,117	7,524	50,830	15.19	3,346
2020	75,214.89	2,465	3,625	75,351	15.21	4,954
	3,450,201.82	1,950,865	2,737,274	885,438		59,074

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.10 LIQUEFACTION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 55-R2						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
1977	5,236,797.00	3,760,243	4,886,002	612,634	16.19	37,840
1978	16,348.00	11,627	15,108	2,057	16.41	125
1979	5,538.00	3,901	5,069	746	16.62	45
1984	21,919.00	14,637	19,019	3,996	17.59	227
1985	11,525.00	7,607	9,884	2,217	17.76	125
1986	14,148.00	9,225	11,987	2,869	17.93	160
1987	8,543.00	5,501	7,148	1,822	18.09	101
1989	21,759.00	13,645	17,730	5,117	18.39	278
1990	2,886.00	1,785	2,319	711	18.53	38
1991	51,784.00	31,546	40,990	13,383	18.67	717
1992	4,079.00	2,447	3,180	1,103	18.80	59
1993	16,196.00	9,557	12,418	4,588	18.93	242
1994	1,119.00	649	843	332	19.05	17
1996	186,692.00	104,365	135,610	60,416	19.27	3,135
1997	151,762.28	83,117	108,001	51,349	19.38	2,650
1998	390,938.46	209,573	272,316	138,169	19.48	7,093
1999	249,536.00	130,705	169,836	92,177	19.58	4,708
2001	180,788.00	90,014	116,963	72,865	19.76	3,688
2002	30,345.79	14,690	19,088	12,775	19.84	644
2004	76,018.79	34,519	44,853	34,966	20.00	1,748
2005	1,705.00	746	969	821	20.08	41
2006	28,555.27	12,018	15,616	14,367	20.15	713
2007	35,357.72	14,250	18,516	18,609	20.21	921
2008	62,378.35	23,950	31,120	34,377	20.28	1,695
2014	356,850.62	86,434	112,311	262,382	20.61	12,731
2017	3,561,611.76	519,817	675,442	3,064,250	20.75	147,675
2018	4,848,560.74	526,866	684,602	4,406,387	20.79	211,947
2019	174,662.05	11,858	15,408	167,987	20.83	8,065
	15,748,403.83	5,735,292	7,452,351	9,083,473		447,428
	19,198,605.65	7,686,157	10,189,625	9,968,911		506,502

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.7 2.64

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.20 VAPORIZING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 40-R4						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -5						
1969	18,960.00	18,848	19,908			
1971	13,254.00	12,991	13,917			
1972	2,368.00	2,304	2,486			
1973	13,251.00	12,797	13,914			
1974	2,259.00	2,165	2,372			
1975	269.00	256	282			
1976	386,664.00	364,281	405,997			
1986	12,078.00	9,908	11,375	1,307	8.70	150
1987	177,462.00	142,923	164,083	22,252	9.24	2,408
1990	1,140,108.00	867,321	995,727	201,386	10.78	18,681
1991	181,570.00	135,456	155,510	35,138	11.25	3,123
1993	1.00	1	1			
1994	32,761.00	23,039	26,450	7,949	12.47	637
1995	11,181.00	7,707	8,848	2,892	12.81	226
2006	321,206.91	165,585	190,100	147,168	14.93	9,857
2015	53,824.46	14,873	17,075	39,441	15.40	2,561
2017	2,091,400.63	405,793	465,870	1,730,100	15.44	112,053
	4,458,618.00	2,186,248	2,493,915	2,187,634		149,696

NEWPORT
INTERIM SURVIVOR CURVE.. IOWA 40-R4
PROBABLE RETIREMENT YEAR.. 6-2042
NET SALVAGE PERCENT.. -5

1977	60,825.00	56,777	34,800	29,066	4.44	6,546
1990	15,899.00	11,807	7,237	9,457	11.68	810
1991	4,866.00	3,525	2,161	2,949	12.36	239
1992	2,226.00	1,572	964	1,374	13.03	105
2002	180.00	94	58	131	18.57	7
2004	68,445.68	32,932	20,185	51,683	19.26	2,683
2011	1,113,015.02	366,470	224,621	944,045	20.73	45,540

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.20 VAPORIZING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 40-R4						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
2015	95,076.50	20,589	12,620	87,211	21.13	4,127
2017	2,379,279.54	353,277	216,535	2,281,709	21.25	107,375
2020	2,967,835.97	71,237	43,663	3,072,564	21.37	143,779
	6,707,648.71	918,280	562,843	6,480,188		311,211
	11,166,266.71	3,104,528	3,056,758	8,667,822		460,907
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.8 4.13

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.30 COMPRESSOR EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 35-R1.5						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -5						
1982	85,687.00	67,186	85,830	4,141	8.76	473
1983	1,117.00	866	1,106	67	9.03	7
1986	21,516.00	16,077	20,538	2,053	9.83	209
1996	19,421.00	12,484	15,948	4,444	12.15	366
2008	53,162.23	24,402	31,174	24,647	13.88	1,776
	180,903.23	121,015	154,597	35,351		2,831
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 35-R1.5						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
1997	20,827.00	11,894	18,704	3,164	15.06	210
2003	178,502.00	85,289	134,123	53,304	16.85	3,163
2005	16,780.44	7,430	11,684	5,935	17.35	342
2014	1,385,829.26	332,801	523,354	931,767	19.02	48,989
2016	2,266,969.59	405,606	637,845	1,742,473	19.28	90,377
2017	497,806.37	72,017	113,252	409,445	19.40	21,105
2018	256,596.34	27,514	43,268	226,158	19.52	11,586
2020	121,183.04	2,838	4,463	122,779	19.73	6,223
	4,744,494.04	945,389	1,486,694	3,495,025		181,995
	4,925,397.27	1,066,404	1,641,291	3,530,376		184,826
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.1 3.75

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.40 MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
LINNTON						
INTERIM SURVIVOR CURVE.. IOWA 50-R4						
PROBABLE RETIREMENT YEAR.. 6-2036						
NET SALVAGE PERCENT.. -5						
1969	461,537.00	421,066	370,000	114,614	6.55	17,498
1970	2,640.00	2,387	2,098	674	6.94	97
1971	9,831.00	8,804	7,736	2,586	7.34	352
1972	6,325.00	5,607	4,927	1,714	7.76	221
1974	1,327.00	1,151	1,011	382	8.64	44
1975	374.00	321	282	111	9.09	12
1985	3,662.00	2,785	2,447	1,398	12.82	109
1988	3,818.00	2,800	2,460	1,548	13.50	115
1990	33,747.00	24,118	21,193	14,241	13.87	1,027
2002	17,323.00	9,982	8,771	9,418	15.12	623
2006	28,273.59	14,429	12,679	17,008	15.29	1,112
2009	168,291.28	75,487	66,332	110,374	15.38	7,176
2013	151,561.74	51,983	45,679	113,461	15.44	7,349
2014	359,909.59	111,909	98,337	279,568	15.45	18,095
2017	1,203,718.97	233,190	204,909	1,058,996	15.47	68,455
2018	426,268.10	62,232	54,685	392,897	15.48	25,381
2020	366,277.42	12,026	10,568	374,024	15.49	24,146
	3,244,884.69	1,040,277	914,115	2,493,014		171,812

NEWPORT
INTERIM SURVIVOR CURVE.. IOWA 50-R4
PROBABLE RETIREMENT YEAR.. 6-2042
NET SALVAGE PERCENT.. -5

1977	55,203.00	45,355	7,869	50,094	10.85	4,617
1988	5,884.00	4,012	696	5,482	16.77	327
1989	4,775.00	3,196	555	4,459	17.19	259
1990	13,736.00	9,025	1,566	12,857	17.58	731
1991	20,511.00	13,224	2,294	19,242	17.94	1,073
1992	3,371.00	2,131	370	3,170	18.28	173
2017	10,187,159.88	1,503,503	260,870	10,435,648	21.40	487,647

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.40 MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
NEWPORT						
INTERIM SURVIVOR CURVE.. IOWA 50-R4						
PROBABLE RETIREMENT YEAR.. 6-2042						
NET SALVAGE PERCENT.. -5						
2018	154,590.07	16,966	2,944	159,376	21.42	7,441
2019	116,849.50	8,027	1,393	121,299	21.43	5,660
2020	101,306.78	2,423	420	105,952	21.45	4,939
	10,663,386.23	1,607,862	278,977	10,917,579		512,867
	13,908,270.92	2,648,139	1,193,092	13,410,593		684,679
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.6 4.92

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.50 CNG REFUELING FACILITIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 31-R3						
NET SALVAGE PERCENT.. -5						
1981	19,620.00	18,455	20,601			
1982	9,560.00	8,901	10,038			
1983	1,563.00	1,440	1,641			
1984	40,443.00	36,835	42,465			
1985	1,466.00	1,319	1,539			
1986	7,018.00	6,230	7,369			
1990	63,479.00	52,699	62,549	4,104	6.49	632
1991	52,207.00	42,457	50,393	4,424	6.99	633
1992	19,707.00	15,673	18,603	2,089	7.52	278
1993	61,210.00	47,498	56,376	7,894	8.09	976
1994	348,384.00	263,378	312,608	53,195	8.68	6,128
1995	293,359.00	215,717	256,039	51,988	9.29	5,596
1996	228,151.00	162,823	193,258	46,301	9.93	4,663
1997	47,984.57	33,156	39,353	11,031	10.60	1,041
1998	28,835.82	19,251	22,849	7,429	11.29	658
1999	4,283.40	2,755	3,270	1,228	12.01	102
2002	1,300.00	737	875	490	14.26	34
2004	49,674.00	25,490	30,255	21,903	15.85	1,382
2012	117,630.32	32,512	38,589	84,923	22.84	3,718
2013	123,013.59	30,125	35,756	93,408	23.77	3,930
2014	1,532,406.79	326,472	387,495	1,221,532	24.71	49,435
	3,051,295.49	1,343,923	1,591,921	1,611,939		79,206
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.4 2.60

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 363.60 LNG REFUELING FACILITIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-S2.5						
NET SALVAGE PERCENT.. -5						
1982	349,437.00	261,239	366,909			
1983	61,620.00	45,348	64,701			
1984	42,767.00	30,965	44,905			
1985	5,173.00	3,680	5,432			
1986	108.00	75	113			
1991	935.00	585	919	63	18.20	3
1992	113,889.00	69,385	109,053	10,530	18.89	557
1993	54,468.00	32,269	50,718	6,473	19.61	330
1994	38,218.00	21,991	34,563	5,566	20.34	274
1995	45,678.00	25,473	40,036	7,926	21.10	376
1996	13,387.00	7,222	11,351	2,705	21.88	124
1997	5,310.00	2,765	4,346	1,230	22.68	54
1999	8,483.00	4,089	6,427	2,480	24.34	102
	739,473.00	505,086	739,473	36,974		1,820

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.3 0.25

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 365.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R4						
NET SALVAGE PERCENT.. 0						
1964	94,094.00	65,727	67,692	26,402	22.61	1,168
1965	445,096.00	306,462	315,622	129,474	23.36	5,543
1966	469,977.00	318,893	328,424	141,553	24.11	5,871
1967	159,280.00	106,442	109,623	49,657	24.88	1,996
1968	20,603.00	13,557	13,962	6,641	25.65	259
1976	28,031.00	15,993	16,471	11,560	32.21	359
1977	12,082.00	6,755	6,957	5,125	33.07	155
1979	9,187.00	4,923	5,070	4,117	34.81	118
1981	5,959.00	3,052	3,143	2,816	36.59	77
1989	815,816.00	337,421	347,506	468,310	43.98	10,648
1990	401,012.00	160,778	165,584	235,428	44.93	5,240
1991	143,060.00	55,546	57,206	85,854	45.88	1,871
1992	13,749.00	5,162	5,316	8,433	46.84	180
2002	395,428.00	97,066	99,967	295,461	56.59	5,221
2003	1,181,773.75	274,491	282,696	899,078	57.58	15,614
2004	2,075,820.15	454,750	468,342	1,607,478	58.57	27,445
2009	184,208.96	28,171	29,013	155,196	63.53	2,443
	6,455,176.86	2,255,189	2,322,594	4,132,583		84,208

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 49.1 1.30

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 366.30 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R3						
NET SALVAGE PERCENT.. 0						
1966	85,985.00	68,272	73,754	12,231	11.33	1,080
2004	898,180.86	257,859	278,565	619,616	39.21	15,802
2005	57,818.26	15,632	16,887	40,931	40.13	1,020
2016	504,088.49	40,418	43,664	460,424	50.59	9,101
	1,546,072.61	382,181	412,870	1,133,203		27,003
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						42.0 1.75

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.00 MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
1931	541.00	679	710	47	7.22	7
1964	631,743.00	610,644	638,709	245,731	21.67	11,340
1965	4,159,205.00	3,966,201	4,148,489	1,674,398	22.32	75,018
1966	3,249,729.00	3,056,026	3,196,482	1,353,139	22.98	58,883
1967	98,086.00	90,925	95,104	42,216	23.65	1,785
1968	4,871.00	4,449	4,653	2,166	24.33	89
1969	17,024.00	15,315	16,019	7,815	25.02	312
1972	18,881.00	16,185	16,929	9,504	27.14	350
1976	1,227,425.00	979,245	1,024,251	694,144	30.11	23,054
1977	4,968.00	3,888	4,067	2,888	30.87	94
1978	12,612.00	9,676	10,121	7,536	31.64	238
1980	34,127.00	25,117	26,271	21,507	33.20	648
1981	510,647.00	367,769	384,672	330,234	33.99	9,716
1982	162,214.00	114,231	119,481	107,619	34.79	3,093
1985	29,321.00	19,211	20,094	20,955	37.24	563
1986	17,437.00	11,135	11,647	12,765	38.07	335
1989	522,156.00	307,028	321,139	409,879	40.60	10,096
1990	139,805.00	79,800	83,468	112,259	41.46	2,708
1991	940.00	520	544	772	42.32	18
1993	136,072.00	70,567	73,810	116,691	44.07	2,648
1994	132,571.00	66,419	69,472	116,127	44.95	2,583
1995	1,514.00	732	766	1,354	45.84	30
2001	536,035.70	200,588	209,807	540,643	51.29	10,541
2002	255,592.00	90,939	95,119	262,710	52.21	5,032
2003	145,757.63	49,150	51,409	152,652	53.14	2,873
2004	102,958.14	32,782	34,289	109,852	54.08	2,031
2007	65,936.81	17,262	18,055	74,257	56.91	1,305
2009	4,600,512.66	1,029,613	1,076,934	5,363,784	58.81	91,205
2010	19,347,382.59	3,958,397	4,140,326	22,946,010	59.77	383,905
2011	8,045,641.26	1,491,678	1,560,236	9,703,662	60.73	159,784
2012	31,403,683.70	5,212,949	5,452,537	38,512,620	61.70	624,192
2013	48,073,769.43	7,047,326	7,371,223	59,932,054	62.67	956,312
2014	17,931,560.05	2,280,966	2,385,800	22,718,384	63.64	356,983
2015	5,312,454.39	572,683	599,003	6,838,433	64.61	105,842
2016	4,539,331.08	400,369	418,770	5,936,294	65.59	90,506
2017	3,119,026.03	214,577	224,439	4,142,197	66.56	62,233
2018	14,912,465.94	733,634	767,352	20,110,100	67.54	297,751
2019	9,864,018.19	291,935	305,352	13,504,273	68.52	197,085
2020	8,908,544.25	87,304	91,317	12,380,645	69.51	178,113
	188,276,558.85	33,527,914	35,068,866	228,518,316		3,729,301

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 61.3 1.98

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.21 MAINS - NORTH MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
1989	1,430,448.00	841,103	1,067,559	935,068	40.60	23,031
1990	81,695.00	46,631	59,186	55,187	41.46	1,331
1991	2,019.00	1,118	1,419	1,408	42.32	33
2004	181.00	58	74	179	54.08	3
2007	48,813.71	12,779	16,219	52,120	56.91	916
2011	431,425.68	79,987	101,522	502,474	60.73	8,274
	1,994,582.39	981,676	1,245,979	1,546,436		33,588
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						46.0 1.68

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.22 MAINS - SOUTH MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
1989	14,864,615.00	8,740,394	11,427,849	9,382,612	40.60	231,099
1990	75,414.00	43,046	56,282	49,298	41.46	1,189
1991	522.00	289	378	353	42.32	8
1993	8,713.00	4,519	5,908	6,290	44.07	143
	14,949,264.00	8,788,248	11,490,417	9,438,553		232,439
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						40.6 1.55

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.23 MAINS - SOUTH MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
1999	33,516,134.00	13,775,064	15,576,220	31,346,368	49.45	633,900
2000	64,133.00	25,191	28,485	61,301	50.36	1,217
2001	603.00	226	256	588	51.29	11
2003	382,180.95	128,873	145,724	389,329	53.14	7,326
2004	44,023.42	14,017	15,850	45,783	54.08	847
2006	256.56	72	81	278	55.96	5
2012	874,010.43	145,084	164,054	1,059,561	61.70	17,173
	34,881,341.36	14,088,527	15,930,670	32,903,208		660,479
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						49.8 1.89

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.24 MAINS - 11.7M S MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
2003	17,466,181.89	5,889,666	6,835,289	17,617,366	53.14	331,527
	17,466,181.89	5,889,666	6,835,289	17,617,366		331,527
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						53.1 1.90

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.25 MAINS - 12M NORTH S MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
2003	10,767,917.66	3,630,985	4,146,417	10,928,668	53.14	205,658
2004	7,746,047.21	2,466,357	2,816,465	8,028,001	54.08	148,447
2005	16,294.30	4,882	5,575	17,237	55.02	313
2012	83,391.98	13,843	15,808	100,941	61.70	1,636
	18,613,651.15	6,116,067	6,984,265	19,074,847		356,054
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						53.6 1.91

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 367.26 MAINS - 38M NORTH S MIST

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R3						
NET SALVAGE PERCENT.. -40						
2003	38,081,707.37	12,841,304	14,752,876	38,561,514	53.14	725,659
2004	30,150,968.21	9,600,129	11,029,215	31,182,140	54.08	576,593
	68,232,675.58	22,441,433	25,782,091	69,743,655		1,302,252
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						53.6 1.91

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 368.00 COMPRESSOR STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. -5						
2008	7,723,454.21	2,162,594	2,884,478	5,225,149	33.00	158,338
	7,723,454.21	2,162,594	2,884,478	5,225,149		158,338
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						33.0 2.05

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 369.00 MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R2.5						
NET SALVAGE PERCENT.. -10						
1965	14,697.00	13,037	16,167			
1966	25,913.00	22,769	28,504			
1967	5,028.00	4,375	5,531			
1977	45,443.00	34,701	47,949	2,038	15.29	133
1987	26,938.00	16,783	23,190	6,442	21.68	297
1992	77,606.00	42,120	58,200	27,167	25.33	1,073
2002	11,991.00	4,398	6,077	7,113	33.33	213
2003	189,080.78	65,808	90,932	117,057	34.18	3,425
2004	3,131,157.55	1,031,215	1,424,905	2,019,368	35.03	57,647
2006	133,313.77	38,832	53,657	92,988	36.76	2,530
2012	202,014.56	35,066	48,453	173,763	42.11	4,126
2014	106,367.62	14,204	19,627	97,377	43.93	2,217
	3,969,550.28	1,323,308	1,823,192	2,543,313		71,661
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						35.5 1.81

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1900	208,257.00	204,119	208,257			
1952	1,813.00	1,367	1,813			
1956	11,140.00	8,058	11,140			
1960	200.00	138	200			
1962	100.00	67	100			
1963	3,425.00	2,273	3,425			
1964	750.00	491	750			
1968	9,669.00	5,969	9,669			
1971	2,507.00	1,474	2,507			
1974	3,304.00	1,844	3,304			
1975	3,640.00	1,994	3,640			
1976	804.00	432	804			
1977	10,277.00	5,414	10,277			
1978	6,845.00	3,534	6,845			
1979	1,589.00	803	1,589			
1980	1,565.00	775	1,565			
1981	8,720.00	4,220	8,720			
1982	1,039.00	492	1,039			
1983	252.00	116	252			
1984	764.00	345	764			
1985	4,779.00	2,101	4,779			
1986	3,752.00	1,608	3,752			
1987	9,733.00	4,059	9,733			
1988	3,902.00	1,583	3,902			
1989	74,994.00	29,557	74,994			
1990	10,006.00	3,828	10,006			
1991	185,065.00	68,646	185,065			
1992	64,966.00	23,327	64,966			
1993	29,877.00	10,377	29,877			
1994	43,236.00	14,498	43,236			
1995	112,714.00	36,460	112,714			
1996	18,109.00	5,638	18,109			
1997	35,832.00	10,721	35,832			
1998	15,125.00	4,342	15,125			
1999	23,933.00	6,577	23,933			
2000	14,758.00	3,874	14,534	224	55.31	4
2001	52,915.00	13,236	49,658	3,257	56.24	58
2002	123,008.00	29,243	109,712	13,296	57.17	233
2003	301,674.10	67,937	254,882	46,792	58.11	805

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 374.20 LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2004	399,977.44	85,063	319,135	80,842	59.05	1,369
2009	2,201.96	329	1,234	968	63.80	15
2010	78,963.14	10,781	40,448	38,515	64.76	595
	1,886,180.64	677,710	1,702,286	183,895		3,079
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						59.7 0.16

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 375.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S0						
NET SALVAGE PERCENT.. 0						
1913	2,827.00	2,827	2,827			
1927	2,144.00	2,144	2,144			
1953	14.00	14	14			
1956	32,928.00	31,028	18,684	14,244	2.02	7,051
1958	3,307.00	3,045	1,834	1,473	2.77	532
1959	871.00	793	478	393	3.15	125
1960	6,983.00	6,281	3,782	3,201	3.52	909
1961	726.00	645	388	338	3.90	87
1962	2,742.00	2,407	1,449	1,293	4.28	302
1965	298.00	252	152	146	5.44	27
1990	25,470.00	13,848	8,339	17,131	15.97	1,073
1993	1,907.00	959	577	1,330	17.40	76
2016	1,356,163.12	151,497	91,225	1,264,938	31.09	40,686
2018	83,178.16	5,418	3,262	79,916	32.72	2,442
	1,519,558.28	221,158	135,155	1,384,403		53,310

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 26.0 3.51

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.11 MAINS - HP 4" AND LESS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 68-R3						
NET SALVAGE PERCENT.. -75						
1906	38.00	66	66			
1910	1,486.00	2,560	2,600			
1911	33.00	57	58			
1912	33.00	56	58			
1913	846.84	1,443	1,482			
1914	389.00	661	681			
1915	258.22	437	452			
1916	203.00	342	355			
1917	91.00	153	159			
1918	420.08	703	735			
1919	2,922.01	4,870	5,114			
1920	530.00	880	928			
1921	1,394.00	2,305	2,435	4	3.75	1
1922	3,143.77	5,177	5,468	34	4.01	8
1923	824.00	1,351	1,427	15	4.27	4
1924	92.28	151	159	2	4.53	
1925	8,272.37	13,459	14,216	261	4.78	55
1926	2,350.36	3,808	4,022	91	5.04	18
1927	2,360.68	3,809	4,023	108	5.30	20
1928	3,512.25	5,644	5,962	184	5.56	33
1929	1,347.09	2,156	2,277	80	5.81	14
1930	2,434.34	3,879	4,097	163	6.08	27
1931	1,270.77	2,017	2,130	94	6.33	15
1932	2,026.99	3,203	3,383	164	6.60	25
1933	404.00	636	672	35	6.86	5
1934	2,553.60	4,000	4,225	244	7.13	34
1935	105.33	164	173	11	7.41	1
1936	4,144.08	6,432	6,794	458	7.69	60
1937	1,220.85	1,886	1,992	144	7.97	18
1938	6.66	10	11	1	8.27	
1939	832.67	1,274	1,346	111	8.57	13
1940	5,037.88	7,665	8,096	720	8.88	81
1941	2,439.72	3,692	3,900	370	9.20	40
1942	9,590.13	14,431	15,243	1,540	9.53	162
1943	988.17	1,478	1,561	168	9.87	17
1944	2,042.04	3,036	3,207	367	10.22	36
1945	1,205.00	1,781	1,881	228	10.58	22
1946	23,985.29	35,209	37,190	4,784	10.96	436
1947	17,685.18	25,788	27,239	3,710	11.34	327
1948	1,905.19	2,758	2,913	421	11.75	36
1949	16,924.00	24,321	25,690	3,927	12.16	323
1950	17,887.98	25,508	26,943	4,361	12.59	346
1951	21,257.02	30,072	31,764	5,436	13.03	417

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.11 MAINS - HP 4" AND LESS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 68-R3						
NET SALVAGE PERCENT.. -75						
1952	19,984.98	28,036	29,614	5,360	13.49	397
1953	24,932.17	34,674	36,625	7,006	13.96	502
1954	14,604.46	20,131	21,264	4,294	14.44	297
1955	12,858.79	17,559	18,547	3,956	14.94	265
1956	247,429.76	334,620	353,449	79,553	15.45	5,149
1957	594,682.74	796,132	840,930	199,765	15.98	12,501
1958	525,431.15	696,258	735,436	184,069	16.51	11,149
1959	768,966.60	1,007,883	1,064,597	281,095	17.07	16,467
1960	1,008,029.32	1,306,703	1,380,231	383,820	17.63	21,771
1961	1,281,325.30	1,641,849	1,734,236	508,083	18.21	27,901
1962	4,974.67	6,298	6,652	2,054	18.81	109
1963	1,788,088.01	2,235,968	2,361,786	767,368	19.41	39,535
1964	2,849,906.44	3,518,266	3,716,239	1,271,097	20.03	63,460
1965	2,962,464.27	3,609,215	3,812,305	1,372,007	20.66	66,409
1966	3,650,767.03	4,387,601	4,634,491	1,754,351	21.30	82,364
1967	2,849,080.90	3,376,496	3,566,491	1,419,401	21.95	64,665
1968	3,039,256.97	3,549,434	3,749,160	1,569,540	22.62	69,387
1969	3,391,058.18	3,901,836	4,121,392	1,812,960	23.29	77,843
1970	3,065,783.87	3,473,916	3,669,393	1,695,729	23.97	70,744
1971	2,898,326.04	3,231,974	3,413,837	1,658,234	24.67	67,217
1972	2,930,221.14	3,213,954	3,394,803	1,733,084	25.38	68,285
1973	3,626,021.83	3,910,882	4,130,947	2,214,591	26.09	84,883
1974	2,977,940.05	3,156,750	3,334,380	1,877,015	26.81	70,012
1975	2,903,480.65	3,022,487	3,192,562	1,888,529	27.55	68,549
1976	3,811,593.56	3,895,249	4,114,434	2,555,855	28.29	90,345
1977	4,342,934.27	4,354,421	4,599,444	3,000,691	29.04	103,330
1978	6,039,116.91	5,936,935	6,271,006	4,297,449	29.80	144,210
1979	8,195,110.55	7,894,104	8,338,305	6,003,138	30.57	196,374
1980	8,542,038.49	8,059,072	8,512,556	6,436,011	31.34	205,361
1981	7,562,331.33	6,980,977	7,373,796	5,860,284	32.13	182,393
1982	7,049,593.83	6,364,303	6,722,422	5,614,367	32.92	170,546
1983	7,271,993.35	6,415,425	6,776,421	5,949,567	33.72	176,440
1984	9,839,843.85	8,475,722	8,952,650	8,267,077	34.53	239,417
1985	10,777,945.21	9,058,944	9,568,690	9,292,714	35.34	262,952
1986	10,472,157.46	8,578,346	9,061,049	9,265,227	36.17	256,158
1987	9,533,405.24	7,608,158	8,036,269	8,647,190	36.99	233,771
1988	9,729,775.17	7,554,587	7,979,683	9,047,424	37.83	239,160
1989	12,207,802.12	9,211,580	9,729,915	11,633,739	38.68	300,769
1990	13,000,015.30	9,524,981	10,060,951	12,689,076	39.53	320,999
1991	14,476,435.75	10,290,068	10,869,090	14,464,673	40.38	358,214
1992	17,015,293.54	11,713,583	12,372,706	17,404,058	41.25	421,917
1993	18,888,338.44	12,580,247	13,288,137	19,766,455	42.12	469,289
1994	20,661,882.33	13,293,597	14,041,627	22,116,667	43.00	514,341

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.11 MAINS - HP 4" AND LESS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 68-R3						
NET SALVAGE PERCENT.. -75						
1995	17,286,428.87	10,730,421	11,334,221	18,917,030	43.88	431,108
1996	16,725,824.09	9,999,283	10,561,942	18,708,250	44.77	417,875
1997	16,924,720.00	9,726,044	10,273,328	19,344,932	45.67	423,581
1998	18,885,649.26	10,415,672	11,001,762	22,048,124	46.57	473,440
1999	17,872,392.12	9,438,053	9,969,132	21,307,554	47.48	448,769
2000	16,435,426.71	8,294,385	8,761,110	20,000,887	48.39	413,327
2001	13,943,422.50	6,706,612	7,083,993	17,316,996	49.31	351,186
2002	12,946,563.84	5,920,593	6,253,744	16,402,743	50.23	326,553
2003	17,196,210.03	7,452,622	7,871,981	22,221,387	51.16	434,351
2004	16,308,012.86	6,677,275	7,053,005	21,486,018	52.09	412,479
2005	12,940,199.46	4,985,374	5,265,901	17,379,448	53.03	327,729
2006	16,110,669.79	5,816,918	6,144,236	22,049,436	53.97	408,550
2007	14,629,100.54	4,924,338	5,201,430	20,399,496	54.92	371,440
2008	8,446,834.95	2,636,806	2,785,179	11,996,782	55.87	214,727
2009	14,493,460.94	4,170,022	4,404,669	20,958,888	56.82	368,865
2010	5,893,522.00	1,550,040	1,637,261	8,676,402	57.78	150,163
2011	11,684,337.97	2,784,553	2,941,240	17,506,351	58.74	298,031
2012	15,929,148.66	3,402,546	3,594,007	24,282,003	59.70	406,734
2013	12,826,502.10	2,419,495	2,555,640	19,890,739	60.67	327,851
2014	14,620,009.12	2,392,967	2,527,619	23,057,397	61.64	374,065
2015	17,697,983.57	2,454,799	2,592,930	28,378,541	62.61	453,259
2016	21,454,387.78	2,434,805	2,571,811	34,973,368	63.59	549,982
2017	19,179,003.01	1,697,965	1,793,509	31,769,746	64.56	492,096
2018	22,483,749.51	1,423,559	1,503,663	37,842,899	65.54	577,402
2019	24,244,404.81	923,227	975,177	41,452,531	66.52	623,159
2020	18,297,917.45	230,874	243,865	31,777,491	67.51	470,708
	658,475,597.80	338,127,797	357,154,000	795,178,296		16,425,871
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						48.4 2.49

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.12 MAINS - HP 4" AND OVER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 68-R3						
NET SALVAGE PERCENT.. -75						
1909	15,171.92	26,215	24,498	2,053	0.86	2,053
1910	18,442.38	31,771	29,690	2,584	1.06	2,438
1911	107.55	185	173	15	1.30	12
1912	123.85	212	198	19	1.52	12
1913	20,767.30	35,397	33,079	3,264	1.77	1,844
1915	4,079.00	6,902	6,450	688	2.25	306
1916	10,173.75	17,152	16,029	1,775	2.49	713
1917	2,712.00	4,555	4,257	489	2.74	178
1918	4,687.00	7,842	7,328	874	2.99	292
1919	80.00	133	124	16	3.24	5
1920	9,605.00	15,944	14,900	1,909	3.50	545
1921	15,536.41	25,689	24,006	3,183	3.75	849
1922	37,159.00	61,194	57,186	7,842	4.01	1,956
1923	17,836.00	29,253	27,337	3,876	4.27	908
1924	5,562.00	9,085	8,490	1,244	4.53	275
1925	19,177.00	31,201	29,157	4,403	4.78	921
1926	33,879.18	54,894	51,299	7,990	5.04	1,585
1927	10,785.00	17,403	16,263	2,611	5.30	493
1928	13,629.16	21,901	20,467	3,384	5.56	609
1929	512.68	821	767	130	5.81	22
1930	57,427.99	91,513	85,519	14,980	6.08	2,464
1931	23,770.94	37,727	35,256	6,343	6.33	1,002
1932	223.93	354	331	61	6.60	9
1934	8,977.24	14,063	13,142	2,568	7.13	360
1935	5,985.19	9,333	8,722	1,752	7.41	236
1937	13,738.29	21,224	19,834	4,208	7.97	528
1939	5,571.02	8,521	7,963	1,786	8.57	208
1940	204.00	310	290	67	8.88	8
1941	2,385.00	3,609	3,373	801	9.20	87
1942	1,951.00	2,936	2,744	670	9.53	70
1945	4,704.00	6,951	6,496	1,736	10.58	164
1946	10,534.00	15,463	14,450	3,984	10.96	364
1947	133,674.27	194,920	182,153	51,777	11.34	4,566
1948	30,663.40	44,389	41,482	12,179	11.75	1,037
1949	5,025.44	7,222	6,749	2,046	12.16	168
1952	27,604.00	38,724	36,188	12,119	13.49	898
1953	11,115.21	15,458	14,446	5,006	13.96	359
1954	14,182.88	19,550	18,270	6,550	14.44	454
1955	83,723.80	114,325	106,837	39,680	14.94	2,656
1956	1,977,070.25	2,673,755	2,498,628	961,245	15.45	62,217
1957	538,445.87	720,844	673,630	268,650	15.98	16,812
1958	1,406,514.81	1,863,797	1,741,721	719,680	16.51	43,591
1959	1,348,172.59	1,767,046	1,651,307	707,995	17.07	41,476

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.12 MAINS - HP 4" AND OVER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 68-R3						
NET SALVAGE PERCENT.. -75						
1960	2,417,691.16	3,134,041	2,928,766	1,302,194	17.63	73,862
1961	2,065,147.35	2,646,213	2,472,890	1,141,118	18.21	62,664
1962	1,298,743.16	1,644,098	1,536,412	736,389	18.81	39,149
1963	2,821,372.73	3,528,070	3,296,987	1,640,415	19.41	84,514
1964	2,782,466.05	3,435,010	3,210,022	1,659,294	20.03	82,840
1965	2,562,859.92	3,122,371	2,917,860	1,567,145	20.66	75,854
1966	2,800,835.12	3,366,128	3,145,652	1,755,809	21.30	82,432
1967	1,920,831.87	2,276,411	2,127,309	1,234,147	21.95	56,225
1968	2,431,356.15	2,839,490	2,653,508	1,601,365	22.62	70,794
1969	2,044,666.70	2,352,645	2,198,550	1,379,617	23.29	59,236
1970	1,780,106.79	2,017,084	1,884,968	1,230,219	23.97	51,323
1971	2,739,194.38	3,054,524	2,854,457	1,939,133	24.67	78,603
1972	1,980,249.89	2,171,997	2,029,734	1,435,703	25.38	56,568
1973	2,349,162.79	2,533,713	2,367,758	1,743,277	26.09	66,818
1974	2,675,203.26	2,835,836	2,650,093	2,031,513	26.81	75,774
1975	1,602,030.21	1,667,693	1,558,462	1,245,091	27.55	45,194
1976	1,156,683.17	1,182,069	1,104,645	919,551	28.29	32,504
1977	1,191,465.49	1,194,617	1,116,371	968,694	29.04	33,357
1978	2,906,574.75	2,857,396	2,670,241	2,416,265	29.80	81,083
1979	2,907,244.17	2,800,461	2,617,035	2,470,642	30.57	80,819
1980	3,064,189.87	2,890,941	2,701,589	2,660,743	31.34	84,899
1981	4,858,587.85	4,485,084	4,191,318	4,311,211	32.13	134,180
1982	4,261,182.51	3,846,953	3,594,983	3,862,086	32.92	117,317
1983	4,289,669.81	3,784,390	3,536,518	3,970,404	33.72	117,746
1984	7,345,237.69	6,326,949	5,912,543	6,941,623	34.53	201,032
1985	5,447,767.78	4,578,890	4,278,979	5,254,615	35.34	148,687
1986	5,296,191.34	4,338,415	4,054,255	5,214,080	36.17	144,155
1987	3,764,728.80	3,004,451	2,807,664	3,780,611	36.99	102,206
1988	5,192,556.04	4,031,708	3,767,637	5,319,336	37.83	140,612
1989	5,087,422.46	3,838,791	3,587,356	5,315,633	38.68	137,426
1990	4,102,654.07	3,005,974	2,809,087	4,370,558	39.53	110,563
1991	7,841,089.29	5,573,564	5,208,504	8,513,402	40.38	210,832
1992	9,228,334.87	6,352,924	5,936,817	10,212,769	41.25	247,582
1993	9,981,223.48	6,647,819	6,212,396	11,254,745	42.12	267,207
1994	9,348,646.75	6,014,802	5,620,841	10,739,291	43.00	249,751
1995	12,328,464.16	7,652,802	7,151,555	14,423,257	43.88	328,698
1996	18,556,236.77	11,093,568	10,366,955	22,106,459	44.77	493,778
1997	19,387,197.32	11,141,144	10,411,415	23,516,180	45.67	514,915
1998	11,705,490.55	6,455,724	6,032,883	14,451,725	46.57	310,323
1999	11,788,183.60	6,225,104	5,817,369	14,811,952	47.48	311,962
2000	14,910,399.20	7,524,757	7,031,896	19,061,303	48.39	393,910
2001	13,549,560.10	6,517,169	6,090,304	17,621,426	49.31	357,360
2002	17,592,560.95	8,045,254	7,518,302	23,268,680	50.23	463,243

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 376.12 MAINS - HP 4" AND OVER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 68-R3						
NET SALVAGE PERCENT.. -75						
2003	30,009,737.78	13,005,845	12,153,981	40,363,060	51.16	788,957
2004	18,511,903.40	7,579,653	7,083,197	25,312,634	52.09	485,940
2005	24,492,470.38	9,436,030	8,817,984	34,043,839	53.03	641,973
2006	19,847,071.13	7,165,984	6,696,622	28,035,752	53.97	519,469
2007	23,355,012.08	7,861,589	7,346,666	33,524,605	54.92	610,426
2008	22,853,464.22	7,134,052	6,666,782	33,326,780	55.87	596,506
2009	17,300,364.24	4,977,618	4,651,591	25,624,046	56.82	450,969
2010	12,942,636.41	3,404,010	3,181,052	19,468,562	57.78	336,943
2011	14,025,278.19	3,342,434	3,123,510	21,420,727	58.74	364,670
2012	19,613,193.33	4,189,476	3,915,071	30,408,017	59.70	509,347
2013	9,294,925.78	1,753,325	1,638,485	14,627,635	60.67	241,102
2014	19,716,648.07	3,227,172	3,015,797	31,488,337	61.64	510,843
2015	16,323,757.02	2,264,187	2,115,886	26,450,689	62.61	422,467
2016	18,742,948.98	2,127,090	1,987,769	30,812,392	63.59	484,548
2017	22,040,804.30	1,951,328	1,823,519	36,747,889	64.56	569,205
2018	35,165,062.57	2,226,476	2,080,645	59,458,214	65.54	907,205
2019	33,030,911.77	1,257,817	1,175,432	56,628,664	66.52	851,303
2020	49,098,994.60	619,507	578,930	85,344,311	67.51	1,264,173
	665,678,335.92	275,630,420	257,577,034	907,360,054		17,629,793
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						51.5 2.65

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 377.00 COMPRESSOR STATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S3						
NET SALVAGE PERCENT.. -5						
2003	818,380.00	481,491	688,761	170,538	13.19	12,929
	818,380.00	481,491	688,761	170,538		12,929
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.2 1.58

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R2.5						
NET SALVAGE PERCENT.. -25						
1949	13,147.00	14,196	15,068	1,366	7.49	182
1950	2,585.00	2,776	2,947	284	7.75	37
1952	3,901.00	4,141	4,395	481	8.29	58
1953	7,573.00	7,991	8,482	984	8.57	115
1954	3,935.00	4,126	4,380	539	8.86	61
1955	13,406.00	13,967	14,825	1,932	9.16	211
1956	48,458.00	50,143	53,224	7,348	9.47	776
1957	30,840.00	31,681	33,628	4,922	9.80	502
1958	42,875.00	43,713	46,399	7,195	10.14	710
1959	36,309.00	36,730	38,987	6,399	10.49	610
1960	107,203.00	107,545	114,154	19,850	10.86	1,828
1961	66,657.00	66,294	70,368	12,953	11.24	1,152
1962	43,697.00	43,072	45,719	8,902	11.63	765
1963	66,875.00	65,294	69,306	14,288	12.04	1,187
1964	82,595.00	79,835	84,741	18,503	12.47	1,484
1965	155,371.00	148,626	157,759	36,455	12.91	2,824
1966	167,417.00	158,400	168,134	41,137	13.37	3,077
1967	95,011.00	88,857	94,317	24,447	13.85	1,765
1968	116,937.00	108,060	114,700	31,471	14.34	2,195
1969	103,704.00	94,630	100,445	29,185	14.85	1,965
1970	44,816.00	40,365	42,845	13,175	15.37	857
1971	104,156.00	92,557	98,245	31,950	15.90	2,009
1972	154,237.00	135,098	143,400	49,396	16.46	3,001
1973	127,698.00	110,227	117,001	42,622	17.02	2,504
1974	68,713.00	58,406	61,995	23,896	17.60	1,358
1975	47,726.00	39,916	42,369	17,288	18.20	950
1976	46,498.00	38,255	40,606	17,516	18.80	932
1977	209,427.00	169,351	179,758	82,026	19.42	4,224
1978	42,548.00	33,787	35,863	17,322	20.06	864
1979	159,252.00	124,145	131,774	67,291	20.70	3,251
1980	159,436.00	121,897	129,388	69,907	21.36	3,273
1981	122,295.00	91,637	97,268	55,601	22.03	2,524
1982	246,534.00	180,922	192,040	116,128	22.71	5,114
1983	244,704.00	175,743	186,542	119,338	23.40	5,100
1984	596,419.00	418,850	444,588	300,936	24.10	12,487
1985	270,231.00	185,416	196,810	140,979	24.81	5,682
1986	371,597.00	248,886	264,180	200,316	25.53	7,846
1987	307,786.00	201,042	213,396	171,336	26.26	6,525
1988	269,971.00	171,799	182,356	155,108	27.00	5,745
1989	300,385.00	186,032	197,464	178,017	27.75	6,415
1990	242,524.00	146,066	155,042	148,113	28.50	5,197
1991	539,949.00	315,749	335,152	339,784	29.27	11,609
1992	464,086.00	263,160	279,331	300,776	30.05	10,009

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 378.00 MEASURING AND REGULATING STATION EQUIPMENT - GENERAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-R2.5						
NET SALVAGE PERCENT.. -25						
1993	273,224.00	150,085	159,308	182,222	30.83	5,911
1994	575,924.00	306,024	324,829	395,076	31.62	12,494
1995	674,159.00	345,970	367,230	475,469	32.42	14,666
1996	1,135,006.00	561,573	596,082	822,676	33.23	24,757
1997	864,430.00	411,588	436,880	643,658	34.05	18,903
1998	600,436.00	274,699	291,579	458,966	34.87	13,162
1999	781,675.00	342,872	363,942	613,152	35.70	17,175
2000	942,827.00	395,563	419,871	758,663	36.54	20,763
2001	85,371.00	34,187	36,288	70,426	37.38	1,884
2002	729,133.00	277,900	294,977	616,439	38.23	16,124
2003	572,105.94	206,866	219,578	495,554	39.09	12,677
2004	933,123.87	318,953	338,553	827,852	39.96	20,717
2005	872,878.63	281,111	298,385	792,713	40.83	19,415
2006	765,479.21	231,213	245,421	711,428	41.71	17,057
2007	1,345,734.33	379,564	402,888	1,279,280	42.59	30,037
2008	1,038,546.13	271,904	288,613	1,009,570	43.48	23,219
2009	1,539,721.35	371,631	394,468	1,530,184	44.38	34,479
2010	1,785,922.18	394,533	418,777	1,813,626	45.28	40,054
2011	1,339,039.11	268,410	284,904	1,388,895	46.18	30,076
2012	2,378,044.43	427,513	453,784	2,518,772	47.09	53,488
2013	3,075,052.89	488,511	518,530	3,325,286	48.01	69,262
2014	2,179,457.46	300,656	319,131	2,405,191	48.93	49,156
2015	838,934.73	98,197	104,231	944,437	49.85	18,946
2016	1,851,845.11	177,615	188,530	2,126,276	50.78	41,872
2017	904,760.73	67,653	71,810	1,059,141	51.71	20,482
2018	2,707,483.76	144,613	153,500	3,230,855	52.65	61,365
2019	1,185,853.42	38,273	40,625	1,441,692	53.58	26,907
2020	2,814,006.67	30,075	31,923	3,485,585	54.53	63,921
	41,139,658.95	12,317,135	13,074,028	38,350,546		907,949

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 42.2 2.21

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R2						
NET SALVAGE PERCENT.. -25						
1956	90,440.00	94,736	113,050			
1957	415.00	431	519			
1958	6,571.00	6,773	8,214			
1959	140.00	143	175			
1960	126,308.00	127,982	157,885			
1961	9,016.00	9,054	11,270			
1962	8,119.00	8,076	10,149			
1963	18,246.00	17,977	22,808			
1964	64,144.00	62,556	80,180			
1965	56,664.00	54,695	70,187	643	11.39	56
1966	20,596.00	19,664	25,234	511	11.81	43
1967	7,958.00	7,512	9,640	308	12.24	25
1968	12,365.00	11,537	14,805	651	12.68	51
1969	35,068.00	32,324	41,480	2,355	13.13	179
1970	9,987.00	9,088	11,662	822	13.60	60
1971	29,853.00	26,815	34,410	2,906	14.07	207
1972	84,792.00	75,126	96,405	9,585	14.56	658
1973	28,044.00	24,496	31,434	3,621	15.06	240
1974	8,729.00	7,513	9,641	1,270	15.57	82
1975	11,764.00	9,973	12,798	1,907	16.09	119
1976	19,765.00	16,489	21,159	3,547	16.63	213
1977	47,198.00	38,738	49,710	9,288	17.17	541
1980	97,555.00	75,898	97,396	24,548	18.88	1,300
1981	36,714.00	28,013	35,947	9,946	19.48	511
1982	29,076.00	21,749	27,909	8,436	20.08	420
1983	6,973.00	5,108	6,555	2,161	20.70	104
1984	29,051.00	20,830	26,730	9,584	21.32	450
1986	84,113.00	57,617	73,937	31,204	22.60	1,381
1987	12,520.00	8,370	10,741	4,909	23.26	211
1988	31,995.00	20,853	26,759	13,235	23.93	553
1989	4,938.00	3,136	4,024	2,148	24.60	87
1990	2,738.00	1,691	2,170	1,252	25.29	50
1991	34,959.00	20,993	26,939	16,760	25.98	645
1992	1,830.00	1,066	1,368	920	26.69	34
1993	979.00	553	710	514	27.40	19
1996	28,701.00	14,638	18,784	17,092	29.60	577
2000	206,808.00	89,755	115,177	143,333	32.64	4,391
2001	40,639.00	16,845	21,616	29,183	33.42	873
2002	220.00	87	112	163	34.21	5
2004	302.39	107	137	241	35.81	7
2005	155,306.30	51,950	66,664	127,469	36.62	3,481
2009	128,042.07	32,235	41,365	118,688	39.93	2,972
2010	135,098.10	31,174	40,004	128,869	40.77	3,161

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 379.00 MEASURING AND REGULATING STATION EQUIPMENT - CITY GATE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R2						
NET SALVAGE PERCENT.. -25						
2011	59,276.55	12,404	15,917	58,179	41.63	1,398
2012	76,366.14	14,357	18,424	77,034	42.48	1,813
2013	2,090,302.12	347,513	445,944	2,166,934	43.35	49,987
2014	832,210.86	120,254	154,315	885,949	44.22	20,035
2015	898,196.35	110,254	141,483	981,262	45.09	21,762
2016	2,565,294.90	258,453	331,658	2,874,961	45.97	62,540
2017	3,101,387.30	243,459	312,417	3,564,317	46.86	76,063
2018	2,513,643.21	141,392	181,440	2,960,614	47.75	62,002
2019	2,515,319.94	84,892	108,937	3,035,213	48.65	62,389
2020	1,693,879.70	19,056	24,454	2,092,896	49.55	42,238
	18,110,616.93	2,516,400	3,212,848	19,425,423		423,933
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						45.8 2.34

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2						
NET SALVAGE PERCENT.. -100						
1905	1,454.88	2,850	2,910			
1906	133.00	259	266			
1908	1,175.00	2,273	2,350			
1909	53.00	102	106			
1910	2,362.19	4,530	4,724			
1912	1,033.12	1,963	2,066			
1913	35.43	67	71			
1914	399.08	751	798			
1915	70.61	132	141			
1918	1,518.13	2,806	3,010	26	4.94	5
1919	1,842.38	3,388	3,634	51	5.23	10
1920	2,145.64	3,927	4,213	78	5.52	14
1922	1,041.12	1,887	2,024	58	6.10	10
1923	1,329.26	2,397	2,571	88	6.40	14
1924	5,689.93	10,209	10,952	428	6.69	64
1925	7,729.36	13,799	14,803	656	6.98	94
1926	4,545.59	8,074	8,661	430	7.27	59
1927	516.25	912	978	54	7.56	7
1928	2,608.45	4,586	4,920	297	7.86	38
1929	3,936.16	6,884	7,385	487	8.16	60
1930	4,212.30	7,328	7,861	564	8.46	67
1931	12,442.10	21,531	23,097	1,787	8.76	204
1932	8,183.91	14,086	15,111	1,257	9.06	139
1933	2,855.07	4,887	5,242	468	9.37	50
1934	3,631.35	6,181	6,631	632	9.68	65
1935	7,394.46	12,514	13,424	1,365	10.00	136
1936	6,100.00	10,263	11,009	1,191	10.32	115
1937	8,857.20	14,815	15,893	1,821	10.64	171
1938	14,762.85	24,543	26,328	3,198	10.97	292
1939	18,587.53	30,707	32,940	4,235	11.31	374
1940	13,148.83	21,580	23,150	3,148	11.66	270
1941	15,202.11	24,786	26,589	3,815	12.01	318
1942	22,313.85	36,142	38,771	5,857	12.36	474
1943	5,697.64	9,164	9,831	1,564	12.73	123
1944	18,494.71	29,535	31,683	5,306	13.10	405
1945	22,868.65	36,252	38,889	6,848	13.48	508
1946	47,546.15	74,802	80,243	14,849	13.87	1,071
1947	36,353.31	56,756	60,884	11,823	14.26	829
1948	18,252.98	28,267	30,323	6,183	14.67	421
1949	25,008.13	38,412	41,206	8,810	15.08	584
1950	23,974.65	36,515	39,171	8,778	15.50	566
1951	52,896.62	79,865	85,674	20,119	15.93	1,263
1952	13,269.00	19,854	21,298	5,240	16.37	320

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2						
NET SALVAGE PERCENT.. -100						
1953	80,527.95	119,379	128,062	32,994	16.82	1,962
1954	11,451.49	16,814	18,037	4,866	17.28	282
1955	17,535.02	25,499	27,354	7,716	17.74	435
1956	222,191.50	319,818	343,080	101,303	18.22	5,560
1957	206,242.51	293,751	315,117	97,368	18.71	5,204
1958	51,679.26	72,828	78,125	25,234	19.20	1,314
1959	278,367.26	387,999	416,220	140,515	19.70	7,133
1960	644,517.23	888,248	952,855	336,179	20.21	16,634
1961	743,271.17	1,012,216	1,085,840	400,702	20.74	19,320
1962	797,864.28	1,073,558	1,151,644	444,085	21.27	20,878
1963	970,842.30	1,290,172	1,384,013	557,672	21.81	25,570
1964	1,182,933.35	1,552,363	1,665,275	700,592	22.35	31,346
1965	1,392,806.24	1,803,796	1,934,996	850,616	22.91	37,129
1966	1,621,482.51	2,071,509	2,222,181	1,020,784	23.48	43,475
1967	1,633,538.76	2,058,259	2,207,967	1,059,111	24.05	44,038
1968	1,753,948.39	2,178,123	2,336,550	1,171,347	24.64	47,538
1969	2,002,520.53	2,450,484	2,628,721	1,376,320	25.23	54,551
1970	2,038,518.58	2,456,904	2,635,608	1,441,429	25.83	55,804
1971	2,313,147.86	2,744,457	2,944,076	1,682,220	26.44	63,624
1972	2,573,926.24	3,004,750	3,223,302	1,924,550	27.06	71,122
1973	2,724,948.82	3,128,241	3,355,775	2,094,123	27.69	75,627
1974	2,408,032.73	2,717,754	2,915,431	1,900,634	28.32	67,113
1975	2,195,613.12	2,434,759	2,611,852	1,779,374	28.96	61,442
1976	2,739,172.47	2,982,740	3,199,691	2,278,654	29.61	76,956
1977	3,284,252.44	3,509,618	3,764,891	2,803,614	30.27	92,620
1978	4,668,070.86	4,892,138	5,247,970	4,088,172	30.94	132,132
1979	5,768,139.03	5,926,071	6,357,106	5,179,172	31.61	163,846
1980	7,212,604.17	7,259,198	7,787,199	6,638,009	32.29	205,575
1981	7,326,408.66	7,218,271	7,743,295	6,909,522	32.98	209,506
1982	5,879,674.11	5,668,006	6,080,271	5,679,077	33.67	168,669
1983	6,480,010.35	6,105,207	6,549,272	6,410,749	34.38	186,467
1984	8,347,553.06	7,682,253	8,241,025	8,454,081	35.09	240,926
1985	10,094,597.09	9,069,592	9,729,272	10,459,922	35.80	292,177
1986	9,730,699.70	8,524,093	9,144,096	10,317,303	36.53	282,434
1987	10,135,225.72	8,650,821	9,280,042	10,990,409	37.26	294,965
1988	11,471,932.47	9,534,094	10,227,560	12,716,305	37.99	334,728
1989	15,056,266.38	12,165,463	13,050,323	17,062,210	38.74	440,429
1990	17,165,852.77	13,473,821	14,453,845	19,877,861	39.49	503,364
1991	18,675,700.93	14,227,896	15,262,768	22,088,634	40.24	548,922
1992	19,369,072.92	14,297,475	15,337,407	23,400,739	41.01	570,611
1993	21,503,442.52	15,369,801	16,487,729	26,519,156	41.77	634,885
1994	21,973,978.38	15,178,745	16,282,777	27,665,180	42.55	650,180
1995	20,326,961.84	13,553,205	14,539,003	26,114,921	43.33	602,698

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 380.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-R2						
NET SALVAGE PERCENT.. -100						
1996	23,057,123.48	14,813,280	15,890,730	30,223,517	44.12	685,030
1997	25,048,806.30	15,484,170	16,610,417	33,487,196	44.91	745,651
1998	24,175,183.29	14,348,938	15,392,614	32,957,753	45.71	721,018
1999	26,319,907.53	14,973,922	16,063,056	36,576,759	46.51	786,428
2000	23,094,986.46	12,563,673	13,477,497	32,712,476	47.32	691,303
2001	23,145,003.52	12,006,702	12,880,014	33,409,993	48.14	694,017
2002	24,247,498.64	11,967,110	12,837,542	35,657,455	48.96	728,298
2003	25,399,826.22	11,894,739	12,759,907	38,039,745	49.78	764,157
2004	23,690,931.83	10,489,397	11,252,347	36,129,517	50.61	713,881
2005	21,749,165.34	9,067,662	9,727,202	33,771,129	51.45	656,387
2006	22,805,666.91	8,918,840	9,567,555	36,043,779	52.29	689,305
2007	20,009,753.60	7,308,362	7,839,939	32,179,568	53.13	605,676
2008	19,907,986.95	6,744,030	7,234,560	32,581,414	53.99	603,471
2009	19,928,534.04	6,230,058	6,683,204	33,173,864	54.84	604,921
2010	12,140,455.69	3,474,113	3,726,804	20,554,107	55.70	369,014
2011	16,367,078.78	4,245,293	4,554,076	28,180,082	56.57	498,145
2012	19,007,428.04	4,421,508	4,743,108	33,271,748	57.44	579,244
2013	24,550,228.46	5,053,419	5,420,981	43,679,476	58.31	749,091
2014	26,595,377.94	4,754,190	5,099,988	48,090,768	59.19	812,481
2015	28,053,832.86	4,255,766	4,565,311	51,542,355	60.07	858,038
2016	28,974,902.49	3,601,580	3,863,542	54,086,263	60.96	887,242
2017	32,458,166.70	3,145,846	3,374,661	61,541,672	61.85	995,015
2018	34,290,450.54	2,374,271	2,546,965	66,033,936	62.75	1,052,334
2019	40,003,432.13	1,673,744	1,795,484	78,211,380	63.64	1,228,966
2020	34,887,797.83	482,847	517,967	69,257,629	64.55	1,072,930
	875,426,720.52	414,394,230	444,534,925	1,306,318,516		26,190,374

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 49.9 2.99

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-L1						
NET SALVAGE PERCENT.. 0						
1910	68,196.32	68,196	68,196			
1929	191.62	186	139	53	0.87	53
1931	87.00	84	63	24	1.18	20
1937	34.00	32	24	10	2.14	5
1939	34.00	31	23	11	2.47	4
1940	2,361.00	2,153	1,613	748	2.64	283
1941	155.00	140	105	50	2.81	18
1942	1.00	1	1			
1943	37.00	33	25	12	3.15	4
1944	649.00	577	432	217	3.33	65
1945	680.00	601	450	230	3.50	66
1946	1,767.00	1,550	1,161	606	3.68	165
1947	735.00	640	479	256	3.86	66
1948	173.00	150	112	61	4.03	15
1950	160.00	137	103	57	4.40	13
1951	66.00	56	42	24	4.59	5
1952	381.00	320	240	141	4.77	30
1953	566.00	472	354	212	4.96	43
1954	326.00	270	202	124	5.15	24
1955	815.00	670	502	313	5.35	59
1956	19,700.06	16,062	12,032	7,668	5.54	1,384
1957	21,443.00	17,340	12,990	8,453	5.74	1,473
1958	14,332.27	11,494	8,610	5,722	5.94	963
1959	406.15	323	242	164	6.14	27
1960	7,381.79	5,822	4,361	3,021	6.34	476
1961	127,089.25	99,342	74,418	52,671	6.55	8,041
1962	176,832.15	136,987	102,619	74,213	6.76	10,978
1963	193,861.62	148,822	111,484	82,378	6.97	11,819
1964	186,363.96	141,761	106,195	80,169	7.18	11,166
1965	258,692.65	194,881	145,988	112,705	7.40	15,230
1966	161,636.94	120,581	90,329	71,308	7.62	9,358
1967	331,636.71	244,970	183,510	148,127	7.84	18,894
1968	276,959.37	202,549	151,732	125,227	8.06	15,537
1969	187,521.62	135,704	101,658	85,864	8.29	10,358
1970	317,181.07	227,102	170,125	147,056	8.52	17,260
1971	330,886.41	234,377	175,575	155,311	8.75	17,750
1972	686,702.97	480,919	360,263	326,440	8.99	36,311
1973	329,668.23	228,239	170,977	158,691	9.23	17,193
1974	426,269.95	291,709	218,523	207,747	9.47	21,937
1975	41,821.20	28,271	21,178	20,643	9.72	2,124
1976	1,465.23	978	733	732	9.97	73
1977	308,137.19	203,164	152,193	155,944	10.22	15,259
1978	307,903.80	200,344	150,080	157,824	10.48	15,060

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-L1						
NET SALVAGE PERCENT.. 0						
1979	525,153.81	337,149	252,563	272,591	10.74	25,381
1980	477,928.30	302,529	226,628	251,300	11.01	22,825
1981	778,481.91	486,030	364,091	414,391	11.27	36,769
1982	627,626.61	385,990	289,150	338,477	11.55	29,305
1983	199,022.95	120,608	90,349	108,674	11.82	9,194
1984	257,219.68	153,388	114,905	142,315	12.11	11,752
1985	369,215.06	216,729	162,354	206,861	12.39	16,696
1986	763,773.24	440,949	330,320	433,453	12.68	34,184
1987	41,341.60	23,454	17,570	23,772	12.98	1,831
1988	493,475.89	275,029	206,028	287,448	13.28	21,645
1989	749,288.58	410,108	307,217	442,072	13.58	32,553
1990	1,198,752.82	643,730	482,226	716,527	13.89	51,586
1991	654,257.39	344,355	257,961	396,296	14.21	27,889
1992	1,139,043.10	587,370	440,006	699,037	14.53	48,110
1993	1,063,193.90	536,913	402,208	660,986	14.85	44,511
1994	1,073,288.06	529,850	396,917	676,371	15.19	44,527
1995	1,213,767.50	585,849	438,867	774,900	15.52	49,929
1996	1,292,533.99	608,784	456,048	836,486	15.87	52,709
1997	1,438,027.61	660,529	494,811	943,217	16.22	58,151
1998	1,417,192.61	634,435	475,263	941,930	16.57	56,846
1999	1,453,390.78	632,705	473,967	979,424	16.94	57,817
2000	1,296,658.17	548,914	411,198	885,460	17.30	51,183
2001	1,820,424.66	747,594	560,032	1,260,393	17.68	71,289
2002	1,910,807.39	760,501	569,701	1,341,106	18.06	74,258
2003	2,817,490.74	1,084,734	812,588	2,004,903	18.45	108,667
2004	3,165,326.73	1,175,381	880,493	2,284,834	18.86	121,147
2005	1,152,471.61	412,205	308,788	843,684	19.27	43,782
2006	7,044,451.82	2,416,247	1,810,041	5,234,411	19.71	265,571
2007	6,049,781.83	1,980,275	1,483,449	4,566,333	20.18	226,280
2008	7,393,161.53	2,296,833	1,720,587	5,672,575	20.68	274,302
2009	683,632.47	200,304	150,050	533,582	21.21	25,157
2010	2,222,341.69	608,922	456,151	1,766,191	21.78	81,092
2011	2,381,725.04	604,958	453,182	1,928,543	22.38	86,173
2012	4,040,590.79	938,750	703,230	3,337,361	23.03	144,914
2013	2,895,901.06	607,184	454,849	2,441,052	23.71	102,955
2014	3,161,380.53	585,899	438,904	2,722,477	24.44	111,394
2015	3,135,455.80	501,673	375,810	2,759,646	25.20	109,510
2016	3,139,322.54	418,566	313,553	2,825,770	26.00	108,683
2017	4,573,959.40	481,775	360,904	4,213,055	26.84	156,969

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.00 METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-L1						
NET SALVAGE PERCENT.. 0						
2018	4,734,683.47	361,398	270,728	4,463,955	27.71	161,095
2019	10,766,226.12	498,799	373,656	10,392,570	28.61	363,250
2020	10,145,276.08	158,976	119,091	10,026,185	29.53	339,525
	106,548,353.39	29,754,411	22,306,515	84,241,838		4,021,015
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						21.0 3.77

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.10 METERS - ELECTRIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 16-S4						
NET SALVAGE PERCENT.. 0						
2012	43,218.56	22,906	39,886	3,333	7.52	443
2013	1,626,489.43	762,417	1,327,603	298,886	8.50	35,163
2014	27,230.47	11,062	19,262	7,968	9.50	839
	1,696,938.46	796,385	1,386,751	310,187		36,445
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						8.5 2.15

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 381.20 METERS - ERT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 16-R2						
NET SALVAGE PERCENT.. 0						
2006	8,975,972.41	6,070,001	5,922,011	3,053,961	5.18	589,568
2007	3,049,306.35	1,957,289	1,909,569	1,139,737	5.73	198,907
2008	6,624,427.80	4,007,779	3,910,067	2,714,361	6.32	429,488
2009	9,452,841.46	5,352,671	5,222,169	4,230,672	6.94	609,607
2010	585,164.49	307,574	300,075	285,089	7.59	37,561
2011	507,356.38	245,114	239,138	268,218	8.27	32,433
2012	646,437.21	283,217	276,312	370,125	8.99	41,171
2013	2,756,216.47	1,080,106	1,053,772	1,702,444	9.73	174,969
2014	209,999.79	72,320	70,557	139,443	10.49	13,293
2016	1,104,334.02	269,877	263,297	841,037	12.09	69,565
2017	1,262,965.50	242,338	236,430	1,026,536	12.93	79,392
2018	1,663,711.46	230,840	225,212	1,438,499	13.78	104,390
2019	3,318,771.18	277,947	271,170	3,047,601	14.66	207,885
2020	3,518,702.53	98,946	96,534	3,422,169	15.55	220,075
	43,676,207.05	20,496,019	19,996,313	23,679,894		2,808,304
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						8.4 6.43

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 26-L1						
NET SALVAGE PERCENT.. 0						
1956	6,139.96	5,384	1,049	5,091	3.20	1,591
1957	37,441.00	32,574	6,347	31,094	3.38	9,199
1958	18,120.95	15,640	3,047	15,074	3.56	4,234
1959	17,807.17	15,246	2,971	14,836	3.74	3,967
1960	56,663.63	48,120	9,376	47,288	3.92	12,063
1961	1,401.59	1,180	230	1,172	4.11	285
1962	126,161.41	105,297	20,516	105,645	4.30	24,569
1963	107,397.56	88,851	17,312	90,086	4.49	20,064
1964	99,774.69	81,815	15,941	83,834	4.68	17,913
1965	211,655.91	171,930	33,499	178,157	4.88	36,508
1966	144,818.96	116,524	22,704	122,115	5.08	24,038
1967	342,054.06	272,590	53,111	288,943	5.28	54,724
1968	330,506.55	260,846	50,823	279,684	5.48	51,037
1969	84.19	66	13	71	5.69	12
1970	216,555.03	167,414	32,619	183,936	5.90	31,176
1971	180,562.11	138,130	26,913	153,649	6.11	25,147
1972	702,143.30	531,466	103,551	598,592	6.32	94,714
1973	327,497.14	245,119	47,759	279,738	6.54	42,773
1974	268,176.99	198,451	38,666	229,511	6.76	33,951
1975	5,896.92	4,312	840	5,057	6.99	723
1976	268,594.21	194,008	37,800	230,794	7.22	31,966
1978	594,597.77	418,965	81,631	512,967	7.68	66,793
1979	41,065.34	28,556	5,564	35,501	7.92	4,482
1980	858,844.75	589,296	114,818	744,027	8.16	91,180
1981	918,409.73	621,341	121,062	797,348	8.41	94,810
1982	532,468.21	355,114	69,190	463,278	8.66	53,496
1983	471,692.40	310,048	60,410	411,282	8.91	46,160
1984	1,174.82	760	148	1,027	9.17	112
1985	918.50	585	114	804	9.43	85
1986	1,233,327.52	773,198	150,650	1,082,678	9.70	111,616
1988	1,092,102.00	661,563	128,899	963,203	10.25	93,971
1989	1,794,622.21	1,067,800	208,050	1,586,572	10.53	150,672
1990	2,282,784.24	1,332,804	259,683	2,023,101	10.82	186,978
1991	744,707.82	426,487	83,097	661,611	11.11	59,551
1992	1,398,940.51	785,015	152,952	1,245,989	11.41	109,201
1995	662,706.40	348,431	67,888	594,818	12.33	48,242
1997	364,284.91	182,423	35,543	328,742	12.98	25,327
1999	806,930.58	382,985	74,621	732,310	13.66	53,610
2000	1,945,393.82	897,118	174,794	1,770,600	14.01	126,381
2001	2,485,388.79	1,112,684	216,795	2,268,594	14.36	157,980
2002	278,730.71	120,819	23,540	255,191	14.73	17,325
2003	1,106.41	464	90	1,016	15.10	67
2004	4,484,647.09	1,814,578	353,552	4,131,095	15.48	266,867

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.00 METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 26-L1						
NET SALVAGE PERCENT.. 0						
2005	1,208,467.59	471,302	91,828	1,116,640	15.86	70,406
2007	2,284,526.76	818,911	159,557	2,124,970	16.68	127,396
2009	537,552.88	173,877	33,878	503,675	17.59	28,634
2010	2,034,587.53	618,209	120,452	1,914,136	18.10	105,753
2011	2,253,929.59	638,042	124,316	2,129,614	18.64	114,250
2012	2,966,047.09	772,299	150,475	2,815,572	19.23	146,416
2013	2,130,519.84	502,313	97,871	2,032,649	19.87	102,297
2014	2,357,782.67	494,238	96,297	2,261,486	20.55	110,048
2015	2,417,960.75	438,957	85,526	2,332,435	21.28	109,607
2016	2,579,264.08	391,842	76,346	2,502,918	22.05	113,511
2017	3,095,369.28	372,621	72,602	3,022,767	22.87	132,172
2018	4,037,896.72	354,083	68,989	3,968,908	23.72	167,323
2019	4,851,232.79	259,347	50,531	4,800,702	24.61	195,071
2020	4,993,187.51	90,277	17,590	4,975,598	25.53	194,892
	64,212,622.94	21,322,315	4,154,436	60,058,187		4,003,336
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.0 6.23

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.10 METER INSTALLATIONS - ELECTRIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L3						
NET SALVAGE PERCENT.. 0						
2012	481,019.77	266,966	162,824	318,196	6.23	51,075
	481,019.77	266,966	162,824	318,196		51,075
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					6.2	10.62

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 382.20 METER INSTALLATIONS - ERT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 18-R3						
NET SALVAGE PERCENT.. 0						
2006	991,816.79	683,798	790,282	201,535	5.59	36,053
2007	1,626,249.40	1,060,672	1,225,844	400,405	6.26	63,962
2008	1,229,131.64	753,863	871,257	357,875	6.96	51,419
2009	4,747,937.93	2,716,865	3,139,945	1,607,993	7.70	208,830
2020	579,560.00	15,776	18,233	561,327	17.51	32,058
	9,174,695.76	5,230,974	6,045,561	3,129,135		392,322
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						8.0 4.28

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 383.00 HOUSE REGULATORS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S2						
NET SALVAGE PERCENT.. 0						
2003	1,944.74	905	883	1,062	18.71	57
2004	50,974.78	22,589	22,041	28,934	19.49	1,485
2005	111,010.40	46,624	45,493	65,517	20.30	3,227
2006	99,709.20	39,514	38,555	61,154	21.13	2,894
2007	106,166.87	39,463	38,505	67,662	21.99	3,077
2008	81,705.03	28,317	27,630	54,075	22.87	2,364
2009	36,113.86	11,587	11,306	24,808	23.77	1,044
2010	82,233.28	24,223	23,635	58,598	24.69	2,373
2011	49,737.69	13,315	12,992	36,746	25.63	1,434
2012	155,612.57	37,436	36,528	119,085	26.58	4,480
2013	340,537.54	72,487	70,728	269,810	27.55	9,793
2014	169,400.03	31,315	30,555	138,845	28.53	4,867
2015	215,465.95	33,798	32,978	182,488	29.51	6,184
2016	177,698.56	22,797	22,244	155,455	30.51	5,095
2017	199,129.42	19,913	19,429	179,700	31.50	5,705
2018	322,261.36	23,019	22,460	299,801	32.50	9,225
2019	220,007.55	9,430	9,201	210,807	33.50	6,293
2020	134,038.69	1,915	1,869	132,170	34.50	3,831
	2,553,747.52	478,647	467,032	2,086,716		73,428

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 28.4 2.88

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 386.00 OTHER PROPERTY ON CUSTOMERS' PREMISES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 10-S6						
NET SALVAGE PERCENT.. 0						
2017	1,162,110.41	406,739	388,027	774,083	6.50	119,090
	1,162,110.41	406,739	388,027	774,083		119,090
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						6.5 10.25

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.10 OTHER EQUIPMENT - CATHODIC PROTECTION TESTING

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S3						
NET SALVAGE PERCENT.. 0						
1989	18,825.00	15,449	18,825			
1990	9,104.00	7,362	9,104			
1991	18,219.00	14,502	17,991	228	6.12	37
1992	82,936.00	64,883	80,495	2,441	6.53	374
2005	9,866.13	4,976	6,173	3,693	14.87	248
2011	34,908.85	11,031	13,685	21,224	20.52	1,034
	173,858.98	118,203	146,273	27,586		1,693
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					16.3	0.97

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.20 OTHER EQUIPMENT - CALORIMETERS AT GATE STATION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 23-S0.5						
NET SALVAGE PERCENT.. 0						
1962	865.00	865	865			
1972	10,994.00	10,994	10,994			
1986	25,765.00	21,374	25,765			
1990	252.00	193	252			
1991	21,291.00	16,014	21,291			
1993	4,866.00	3,501	4,866			
1994	7,658.00	5,381	7,658			
1995	2,254.00	1,544	2,254			
1996	2,372.00	1,584	2,372			
1997	12,952.00	8,419	12,952			
1998	4,440.00	2,803	4,440			
1999	2,715.00	1,663	2,715			
	96,424.00	74,335	96,424			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 387.30 OTHER EQUIPMENT - METER TESTING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S4						
NET SALVAGE PERCENT.. 0						
1978	6,819.00	6,718	6,819			
1979	8,748.00	8,577	8,748			
1984	1,225.00	1,175	1,225			
1985	40,398.00	38,556	40,398			
1986	1,347.00	1,278	1,347			
1987	1,633.00	1,540	1,633			
1990	606.00	558	606			
1991	11,895.00	10,858	11,895			
	72,671.00	69,260	72,671			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-S0						
NET SALVAGE PERCENT.. -5						
1913	49,479.00	51,953	51,953			
1915	172.00	181	181			
1920	424.00	445	445			
1922	510.00	536	536			
1923	67.00	70	70			
1924	11.00	12	12			
1925	92.00	96	97			
1927	545.00	561	572			
1930	177.00	178	186			
1936	33.00	32	35			
1937	236.00	224	248			
1938	945.00	889	992			
1939	107.00	100	112			
1940	95.00	88	100			
1941	1,344.00	1,230	1,411			
1942	511.00	464	537			
1943	3,058.00	2,748	3,188	23	6.92	3
1944	31.00	28	32	1	7.31	
1945	762.00	672	780	20	7.69	3
1946	193.00	169	196	7	8.08	1
1947	6,781.00	5,864	6,802	318	8.47	38
1948	3,062.00	2,622	3,041	174	8.86	20
1949	8,343.00	7,070	8,201	559	9.26	60
1950	248.00	208	241	19	9.65	2
1951	10,081.00	8,369	9,708	877	10.05	87
1952	29,220.00	24,001	27,841	2,840	10.45	272
1953	11,532.00	9,372	10,871	1,238	10.85	114
1954	63.00	51	59	7	11.25	1
1955	17,854.00	14,193	16,464	2,283	11.66	196
1956	46,058.00	36,210	42,003	6,358	12.06	527
1957	3,819.00	2,968	3,443	567	12.47	45
1958	2,256.00	1,733	2,010	359	12.88	28
1959	1,537.00	1,167	1,354	260	13.29	20
1960	2,315.00	1,736	2,014	417	13.71	30
1961	7,174.00	5,317	6,168	1,365	14.12	97
1962	5,289.00	3,871	4,490	1,063	14.54	73
1963	7,300.00	5,276	6,120	1,545	14.96	103
1964	130,505.00	93,123	108,021	29,009	15.38	1,886
1965	277,036.00	195,075	226,282	64,606	15.81	4,086
1966	652,577.00	453,380	525,910	159,296	16.24	9,809
1967	28,680.00	19,656	22,801	7,313	16.67	439
1968	58,260.00	39,380	45,680	15,493	17.10	906
1969	24,007.00	15,996	18,555	6,652	17.54	379

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-S0						
NET SALVAGE PERCENT.. -5						
1970	16,934.00	11,120	12,899	4,882	17.98	272
1971	22,591.00	14,618	16,957	6,764	18.42	367
1972	82,143.00	52,361	60,738	25,512	18.86	1,353
1973	232,553.00	145,949	169,297	74,884	19.31	3,878
1974	410,099.00	253,337	293,865	136,739	19.76	6,920
1975	35,275.00	21,444	24,875	12,164	20.21	602
1976	674,980.00	403,536	468,092	240,637	20.67	11,642
1977	71,654.00	42,117	48,855	26,382	21.13	1,249
1978	794,667.00	459,095	532,540	301,860	21.59	13,981
1979	34,675.00	19,676	22,824	13,585	22.06	616
1980	90,623.00	50,491	58,568	36,586	22.53	1,624
1981	357,050.00	195,182	226,407	148,496	23.01	6,454
1982	254,992.00	136,714	158,585	109,157	23.49	4,647
1983	29,883.00	15,708	18,221	13,156	23.97	549
1984	23,017.00	11,852	13,748	10,420	24.46	426
1985	54,140.00	27,298	31,665	25,182	24.95	1,009
1986	104,994.00	51,791	60,076	50,168	25.45	1,971
1987	70,133.00	33,829	39,241	34,399	25.95	1,326
1988	73,630.00	34,710	40,263	37,048	26.45	1,401
1989	92,458.00	42,553	49,360	47,721	26.96	1,770
1990	164,888.00	74,014	85,855	87,277	27.48	3,176
1991	128,634.00	56,278	65,281	69,785	28.00	2,492
1992	247,197.00	105,281	122,124	137,433	28.53	4,817
1993	153,692.00	63,644	73,826	87,551	29.07	3,012
1995	20,855.50	8,139	9,441	12,457	30.16	413
1996	92,155.78	34,855	40,431	56,333	30.71	1,834
1997	221,794.36	81,169	94,154	138,730	31.27	4,437
1998	372,630.53	131,726	152,799	238,463	31.84	7,489
1999	421,098.00	143,514	166,473	275,680	32.42	8,503
2000	181,017.49	59,396	68,898	121,170	33.00	3,672
2001	409,332.12	128,940	149,567	280,232	33.60	8,340
2002	215,912.56	65,179	75,606	151,102	34.20	4,418
2003	948,566.69	273,689	317,473	678,522	34.81	19,492
2004	4,167,289.98	1,144,978	1,328,148	3,047,506	35.44	85,991
2005	1,235,865.90	322,520	374,116	923,543	36.07	25,604
2006	1,174,466.05	290,058	336,460	896,729	36.71	24,427
2007	88,023.67	20,468	23,742	68,683	37.37	1,838
2008	323,999.07	70,591	81,884	258,315	38.04	6,791
2009	661,837.93	134,351	155,844	539,086	38.72	13,923
2010	804,641.72	151,021	175,181	669,693	39.42	16,989
2011	3,699,451.31	636,890	738,778	3,145,646	40.13	78,386
2012	8,807,856.10	1,375,677	1,595,753	7,652,496	40.86	187,286
2013	15,918,360.62	2,225,005	2,580,954	14,133,325	41.61	339,662

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 390.00 STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-S0						
NET SALVAGE PERCENT.. -5						
2014	9,852,047.32	1,211,152	1,404,908	8,939,742	42.38	210,942
2015	3,733,548.59	394,453	457,556	3,462,670	43.17	80,210
2016	892,926.91	78,522	91,084	846,489	43.98	19,247
2017	544,679.08	38,009	44,090	527,823	44.81	11,779
2018	12,218,297.09	620,036	719,226	12,109,986	45.68	265,105
2019	2,424,143.46	75,826	87,957	2,457,394	46.57	52,768
2020	1,032,231.09	11,066	12,836	1,071,007	47.51	22,543
	76,076,719.92	13,057,142	15,137,283	64,743,273		1,596,868
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						40.5 2.10

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 390.10 STRUCTURES AND IMPROVMENTS - SOURCE CONTROL PLANT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 48-S0						
NET SALVAGE PERCENT.. -5						
2013	18,590,294.85	2,598,477	5,607,300	13,912,510	41.61	334,355
2016	1,974,384.53	173,622	374,662	1,698,442	43.98	38,619
2017	216,141.91	15,083	32,548	194,401	44.81	4,338
2019	507,450.95	15,873	34,253	498,570	46.57	10,706
	21,288,272.24	2,803,055	6,048,763	16,303,923		388,018
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					42.0	1.82

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 391.10 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2001	133,333.12	130,000	129,357	3,976	0.50	3,976
2002	150,625.11	139,328	138,639	11,986	1.50	7,991
2003	318,220.88	278,443	277,066	41,155	2.50	16,462
2004	900,507.14	742,918	739,243	161,264	3.50	46,075
2005	156,461.63	121,258	120,658	35,804	4.50	7,956
2006	86,514.39	62,723	62,413	24,101	5.50	4,382
2007	161,293.83	108,873	108,335	52,959	6.50	8,148
2008	262,606.27	164,129	163,317	99,289	7.50	13,239
2009	291,701.73	167,728	166,898	124,804	8.50	14,683
2010	523,345.63	274,756	273,397	249,949	9.50	26,310
2011	662,400.03	314,640	313,084	349,316	10.50	33,268
2012	598,121.21	254,202	252,945	345,176	11.50	30,015
2013	1,010,562.81	378,961	377,087	633,476	12.50	50,678
2014	970,959.60	315,562	314,001	656,959	13.50	48,664
2015	545,951.58	150,137	149,394	396,558	14.50	27,349
2016	207,916.94	46,781	46,550	161,367	15.50	10,411
2017	614,673.90	107,568	107,036	507,638	16.50	30,766
2018	377,531.98	47,191	46,957	330,575	17.50	18,890
2019	201,479.88	15,111	15,036	186,444	18.50	10,078
2020	8,922,392.72	223,060	221,957	8,700,436	19.50	446,176
	17,096,600.38	4,043,369	4,023,370	13,073,230		855,517
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						15.3 5.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 391.20 OFFICE FURNITURE AND EQUIPMENT - COMPUTERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2016	5,994,906.35	5,395,416	5,140,839	854,067	0.50	854,067
2017	9,251,985.94	6,476,390	6,170,809	3,081,177	1.50	2,054,118
2018	6,316,184.34	3,158,092	3,009,081	3,307,103	2.50	1,322,841
2019	16,009,299.20	4,802,790	4,576,176	11,433,123	3.50	3,266,607
2020	16,788,710.61	1,678,871	1,599,655	15,189,056	4.50	3,375,346
	54,361,086.44	21,511,559	20,496,560	33,864,526		10,872,979
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					3.1	20.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 392.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 13-L2						
NET SALVAGE PERCENT.. +15						
1972	69,477.00	59,055	59,055			
1976	6,463.00	5,494	5,494			
1983	30,356.00	25,803	25,803			
1984	2,344.00	1,991	1,886	106	0.01	106
1987	8,088.00	6,542	6,197	678	0.63	678
1988	12,086.00	9,633	9,126	1,147	0.81	1,147
1990	21,296.00	16,486	15,618	2,484	1.16	2,141
1991	9,846.00	7,506	7,111	1,258	1.34	939
1994	144,453.04	104,651	99,140	23,645	1.92	12,315
1995	160,204.54	113,967	107,965	28,209	2.12	13,306
1996	93,152.25	65,049	61,623	17,556	2.32	7,567
1997	35,160.27	24,070	22,802	7,084	2.53	2,800
1998	155,689.12	104,341	98,846	33,490	2.75	12,178
1999	143,569.00	94,060	89,106	32,928	2.98	11,050
2000	22,937.00	14,682	13,909	5,587	3.21	1,740
2001	88,293.98	55,133	52,229	22,821	3.45	6,615
2002	76,191.06	46,330	43,890	20,872	3.70	5,641
2003	377,149.59	223,170	211,417	109,160	3.95	27,635
2004	417,758.72	240,371	227,712	127,383	4.20	30,329
2005	98,779.41	55,221	52,313	31,649	4.45	7,112
2006	98,185.08	53,284	50,478	32,979	4.70	7,017
2007	348,154.79	183,478	173,815	122,117	4.94	24,720
2008	580,059.41	296,590	280,970	212,080	5.18	40,942
2009	1,217,937.87	602,835	571,087	464,160	5.43	85,481
2010	1,324,376.71	632,137	598,846	526,874	5.70	92,434
2011	3,872,550.00	1,769,897	1,676,686	1,614,982	6.01	268,716
2012	4,689,331.16	2,029,756	1,922,860	2,063,071	6.38	323,365
2013	2,980,314.16	1,200,389	1,137,171	1,396,096	6.84	204,108
2014	2,062,903.78	755,342	715,562	1,037,906	7.40	140,258
2015	5,949,472.76	1,913,892	1,813,098	3,243,954	8.08	401,479
2016	6,566,909.46	1,781,901	1,688,058	3,893,815	8.85	439,979
2017	6,042,104.01	1,307,674	1,238,807	3,896,981	9.69	402,165
2018	5,288,251.03	836,747	792,680	3,702,333	10.58	349,937
2019	7,358,848.54	712,134	674,630	5,580,391	11.52	484,409
2020	4,166,417.06	136,204	129,031	3,412,424	12.50	272,994
	54,519,109.80	15,485,815	14,675,021	31,666,222		3,681,303

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.6 6.75

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 393.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
1931	410.00	410	410			
1949	142.00	142	142			
1950	555.00	555	555			
1951	854.00	854	854			
1953	319.00	319	319			
1956	5,263.00	5,263	5,263			
1957	4,077.00	4,077	4,077			
1959	2,143.00	2,143	2,143			
1960	4,411.00	4,411	4,411			
1961	7,017.00	7,017	7,017			
1962	1,425.00	1,425	1,425			
1963	6,629.00	6,629	6,629			
1964	7,252.00	7,252	7,252			
1965	912.00	912	912			
1966	22,261.00	22,261	22,261			
1967	2,462.00	2,462	2,462			
1968	5,254.00	5,254	5,254			
1969	2,624.00	2,624	2,624			
1970	3,287.00	3,287	3,287			
1971	2,696.00	2,696	2,696			
1972	1,500.00	1,500	1,500			
1974	2,858.00	2,858	2,858			
1975	135.00	135	135			
1976	9,518.00	9,518	9,518			
1977	2,502.00	2,502	2,502			
1978	2,983.00	2,983	2,983			
1979	6,192.00	6,192	6,192			
1980	4,499.00	4,499	4,499			
1982	3,276.00	3,276	3,276			
1984	1,936.00	1,936	1,936			
1985	2,099.00	2,099	2,099			
1986	1,915.00	1,915	1,915			
	119,406.00	119,406	119,406			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 394.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2000	533,048.95	437,100	437,100	95,949	4.50	21,322
2001	494,438.80	385,662	385,662	108,777	5.50	19,778
2002	479,727.82	354,999	354,999	124,729	6.50	19,189
2003	546,830.13	382,781	382,781	164,049	7.50	21,873
2004	857,542.25	565,978	565,978	291,564	8.50	34,302
2005	731,631.02	453,611	453,611	278,020	9.50	29,265
2006	382,098.07	221,617	221,617	160,481	10.50	15,284
2007	212,322.56	114,654	114,654	97,669	11.50	8,493
2008	419,885.67	209,943	209,943	209,943	12.50	16,795
2009	236,537.99	108,807	108,807	127,731	13.50	9,462
2010	79,462.62	33,374	33,374	46,089	14.50	3,179
2011	286,576.95	108,899	108,899	177,678	15.50	11,463
2012	1,673,154.33	568,872	568,873	1,104,281	16.50	66,926
2013	944,985.54	283,496	283,496	661,490	17.50	37,799
2014	431,652.65	112,230	112,230	319,423	18.50	17,266
2015	360,232.86	79,251	79,251	280,982	19.50	14,409
2016	1,360,659.75	244,919	244,919	1,115,741	20.50	54,426
2017	1,829,211.61	256,090	256,090	1,573,122	21.50	73,168
2018	1,358,183.38	135,818	135,819	1,222,364	22.50	54,327
2019	1,213,235.91	72,794	72,794	1,140,442	23.50	48,529
2020	2,493,919.94	49,878	49,878	2,444,042	24.50	99,757
	16,925,338.80	5,180,773	5,180,775	11,744,564		677,012
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.3 4.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 396.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 17-L1.5						
NET SALVAGE PERCENT.. +20						
1985	62,386.85	40,955	40,856	9,053	3.05	2,968
1989	14,660.73	9,107	9,085	2,644	3.80	696
1991	9,842.00	5,919	5,905	1,969	4.22	467
1994	25,235.00	14,393	14,358	5,830	4.88	1,195
1995	39,380.00	22,016	21,963	9,541	5.12	1,863
1996	46,596.00	25,524	25,462	11,815	5.36	2,204
1997	150,613.60	80,729	80,534	39,957	5.61	7,122
1998	55,390.23	29,037	28,967	15,345	5.86	2,619
1999	17,877.00	9,153	9,131	5,171	6.12	845
2000	15,010.00	7,502	7,484	4,524	6.38	709
2002	222,657.48	105,828	105,572	72,554	6.90	10,515
2003	84,041.02	38,916	38,822	28,411	7.16	3,968
2004	100,464.81	45,245	45,135	35,237	7.43	4,743
2005	514,614.20	224,977	224,433	187,258	7.71	24,288
2006	415,901.80	176,342	175,915	156,806	7.99	19,625
2007	32,314.73	13,230	13,198	12,654	8.30	1,525
2008	38,685.54	15,256	15,219	15,729	8.62	1,825
2009	43,882.66	16,562	16,522	18,584	8.98	2,069
2010	749,959.03	268,929	268,278	331,689	9.38	35,361
2011	685,481.38	231,287	230,727	317,658	9.83	32,315
2012	727,751.26	228,427	227,874	354,327	10.33	34,301
2013	1,189,458.97	341,441	340,615	610,952	10.90	56,051
2014	386,119.43	99,211	98,971	209,925	11.54	18,191
2015	1,037,224.94	232,338	231,776	598,004	12.24	48,857
2016	580,228.49	109,218	108,954	355,229	13.00	27,325
2017	1,447,550.50	217,990	217,462	940,578	13.80	68,158
2018	1,884,318.38	207,501	206,999	1,300,456	14.66	88,708
2019	1,761,607.76	118,549	118,262	1,291,024	15.57	82,917
2020	1,682,340.10	38,007	37,915	1,307,957	16.52	79,174
	14,021,593.89	2,973,589	2,966,394	8,250,881		660,604

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.5 4.71

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2007	17,682.64	15,914	15,914	1,769	1.50	1,179
2011	17,141.76	10,856	10,856	6,286	5.50	1,143
2012	32,576.38	18,460	18,460	14,116	6.50	2,172
	67,400.78	45,230	45,230	22,171		4,494
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.9 6.67

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.10 COMMUNICATION EQUIPMENT - MOBILE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2018	55,474.85	13,869	13,869	41,606	7.50	5,547
2019	4,161,405.21	624,211	624,211	3,537,194	8.50	416,140
2020	40,009.64	2,000	2,000	38,010	9.50	4,001
	4,256,889.70	640,080	640,080	3,616,810		425,688
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						8.5 10.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.20 COMMUNICATION EQUIPMENT - NON-MOBILE AND TELEMETER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2013	9,957.65	4,979	4,980	4,978	7.50	664
	9,957.65	4,979	4,980	4,978		664
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					7.5	6.67

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.30 COMMUNICATION EQUIPMENT - TELEMETER OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	63,885.65	61,756	61,300	2,586	0.50	2,586
2007	53,241.79	47,918	47,564	5,678	1.50	3,785
2008	153,747.85	128,123	127,176	26,572	2.50	10,629
2009	47,988.32	36,791	36,519	11,469	3.50	3,277
2010	188,278.98	131,795	130,821	57,458	4.50	12,768
2011	562,402.09	356,186	353,554	208,848	5.50	37,972
2012	264,234.41	149,734	148,627	115,607	6.50	17,786
2013	135,620.33	67,810	67,309	68,311	7.50	9,108
2014	386,407.83	167,442	166,205	220,203	8.50	25,906
2015	2,309.81	847	841	1,469	9.50	155
2018	94,316.84	15,720	15,604	78,713	12.50	6,297
2019	436,457.88	43,646	43,323	393,135	13.50	29,121
2020	4,370,817.24	145,679	144,602	4,226,215	14.50	291,463
	6,759,709.02	1,353,447	1,343,445	5,416,264		450,853
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.0						6.67

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.40 COMMUNICATION EQUIPMENT - TELEMETER MICROWAVE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	84,491.47	81,675	80,431	4,060	0.50	4,060
2007	61,119.78	55,008	54,170	6,950	1.50	4,633
2010	71,274.98	49,892	49,132	22,143	4.50	4,921
2011	44,683.87	28,300	27,869	16,815	5.50	3,057
2013	177,219.97	88,610	87,260	89,960	7.50	11,995
2014	371,736.68	161,085	158,632	213,105	8.50	25,071
2015	76,277.45	27,969	27,543	48,734	9.50	5,130
2017	1,206,002.15	281,396	277,110	928,892	11.50	80,773
2019	2,823,889.54	282,389	278,088	2,545,802	13.50	188,578
2020	806,757.36	26,889	26,480	780,277	14.50	53,812
	5,723,453.25	1,083,213	1,066,715	4,656,738		382,030
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.2 6.67

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 397.50 COMMUNICATION EQUIPMENT - TELEPHONE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 10-SQUARE						
NET SALVAGE PERCENT.. 0						
2012	150,095.31	127,581	127,581	22,514	1.50	15,009
2013	3,579.33	2,684	2,684	895	2.50	358
2014	242,651.73	157,724	157,723	84,929	3.50	24,265
2015	94,440.13	51,942	51,942	42,498	4.50	9,444
	490,766.50	339,931	339,930	150,836		49,076
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.1 10.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 398.10 MISCELLANEOUS EQUIPMENT - PRINT SHOP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2009	4,359.31	3,342	3,342	1,017	3.50	291
	4,359.31	3,342	3,342	1,017		291
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						3.5 6.67

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 398.20 MISCELLANEOUS EQUIPMENT - KITCHEN

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	12,812.44	8,969	8,970	3,842	4.50	854
2020	16,052.40	535	535	15,517	14.50	1,070
	28,864.84	9,504	9,505	19,360		1,924
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.1 6.67

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 398.30 MISCELLANEOUS EQUIPMENT - JANITORIAL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
1947	889.00	889	889			
1958	3,088.00	3,088	3,088			
1960	20.00	20	20			
1962	1,248.00	1,248	1,248			
1963	801.00	801	801			
1964	1,355.00	1,355	1,355			
1965	1,157.00	1,157	1,157			
1966	1,108.00	1,108	1,108			
1967	1,659.00	1,659	1,659			
1968	1,108.00	1,108	1,108			
1969	1,653.00	1,653	1,653			
1970	255.00	255	255			
1976	266.00	266	266			
1992	266.00	266	266			
	14,873.00	14,873	14,873			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 398.40 MISCELLANEOUS EQUIPMENT - LEASED BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
1969	605.00	605	605			
1985	4,788.00	4,788	4,788			
1986	4,455.00	4,455	4,455			
1987	272.00	272	272			
	10,120.00	10,120	10,120			
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

NORTHWEST NATURAL GAS COMPANY

ACCOUNT 398.50 MISCELLANEOUS EQUIPMENT - OTHER

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
1958	299.00	299	299			
1961	486.00	486	486			
1962	5,361.00	5,361	5,361			
1964	972.00	972	972			
1965	410.00	410	410			
1966	864.00	864	864			
1971	267.00	267	267			
1976	1,127.00	1,127	1,127			
1977	12,091.00	12,091	12,091			
1978	741.00	741	741			
1985	262.00	262	262			
1986	5,000.00	5,000	5,000			
1987	1,831.00	1,831	1,831			
1988	814.00	814	814			
1989	7,330.00	7,330	7,330			
1990	765.00	765	765			
1991	5,587.00	5,587	5,587			
1992	8,257.00	8,257	8,257			
1993	14,275.00	14,275	14,275			
	66,739.00	66,739	66,739			

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 0.0 0.00