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March 24, 2021

Attention: Patrick Wruck
Commission Secretary

British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC Canada V6Z 2N3

83819/490

Dear Mr. Wruck:

PKM Canada (Jet Fuel) Inc. ("PKMJF") Tariff Filing Proceeding regarding Application for Tariff No. 40 for 2019-2021 Tolls for Services on the Jet Fuel Line
British Columbia Utilities Commission Project No. 1598984 ("Proceeding")
PKMJF Submission of Public Version of Confidential Rebuttal Evidence of PKMJF and Expert Rebuttal Report of Erik Wetmore

We act on behalf of PKMJF with respect to the above noted British Columbia Utilities Commission ("Commission") Proceeding. Further to our letter of March 8, 2021, we enclose herewith a redacted version of both the Rebuttal Evidence of PKMJF and Expert Rebuttal Report of Erik Wetmore. In the attached versions, PKMJF has redacted references to confidential materials and information submitted in these proceedings.

In addition to the redactions, several citations in footnotes have been updated to refer to public exhibits instead of confidential exhibits (*e.g.*, footnote 7 in the Expert Rebuttal Report of Erik Wetmore has been revised to cite Bowman Evidence, Ex C2-36-2 instead of C2-36-1). These revisions are clearly indicated in track changes for ease of review. Note that footnote 30 in the Expert Rebuttal Report of Erik Wetmore was incorrect and has been updated to refer to the correct citation, also reflected in track changes.

Should you require any further information please contact Ms. Oleniuk or the undersigned.

Sincerely,

<Submitted electronically>

David Tupper

Enclosures

Expert Rebuttal Report of
Erik G. Wetmore

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1. Professional and Educational Experience

1. My name is Erik G. Wetmore, and I am a Principal in the consulting firm Turner Wetmore Collins, LLC. I have more than thirty years of professional experience, primarily in advising oil pipeline companies on cost of service as well as regulatory accounting and depreciation issues. My professional experience includes providing expert testimony in approximately fifty oil pipeline cost-of-service proceedings, developing depreciation studies for oil pipeline companies, and regularly advising oil pipeline companies on their regulatory accounting and cost of service reports. Many of the companies that I have represented in rate proceedings transport jet fuel, as that is one of the primary products transported by oil pipelines. I was retained by the Association of Oil Pipe Lines ("AOPL") to direct the development of their annual regulatory oil pipeline accounting and cost-of-service training course, and I teach annually at that training course. I was also retained by the AOPL to author a report for its members that compared and contrasted the Uniform System of Accounts for Oil Pipelines with Generally Accepted Accounting Principles. I received an M.B.A., with concentrations in Finance and Economics, from the University of Chicago Booth School of Business, and a B.A. in Mathematics and Economics from the University of California at Santa Barbara. I also earned a Certified Public Accountant license. Additional details about my professional and educational background are provided in Attachment EGW-1.

2. I was originally retained by PKM Canada (Jet Fuel) Inc. ("PKMJF")[1] to develop a cost of service[2] study regarding PKMJF's annual costs, including a reasonable return on and of its investment, for providing fuel transportation services on the Jet Fuel System for the period from January 1, 2019 to December 31, 2019. PKMJF has now requested that I respond to portions of the intervener evidence filed on December 16, 2020, including responses to information requests[3] filed on February 22 and 23, 2021, by the following intervener witnesses:

    - Parkland Refining (B.C.) Ltd. ("Parkland") witness James Dyack; and
    - Vancouver Airport Fuel Facilities Corporation ("VAFFC") witnesses Patrick Bowman, Melissa Davies, and Patricia Lee.

3. The remainder of my report is organized as follows:

    - In section 2, I provide relevant background information regarding PKMJF's prior toll applications;
    - In Section 3, I explain the development of PKMJF's revenue requirement and abandonment surcharge, and address issues raised by intervener witnesses regarding those items;

[1] For the purposes of this report, PKMJF includes its corporate predecessors.

[2] The terms cost of service and revenue requirement are used interchangeably for purposes of this report.

[3] Note that VAFFC's responses to information requests do not indicate the author of the response (i.e., VAFFC, Mr. Bowman, Ms. Davies, or Ms. Lee). Accordingly, I have assumed that when the information request relates to the evidence of one of the experts, it was that expert who drafted the response.

- In Section 4, I address why it is inappropriate to use acquisition amounts for ratemaking purposes;
- In Section 5, I address ancillary issues raised by VAFFC witnesses; and
- In Section 6, I summarize updates that PKMJF requested that I make to its revenue requirement.

2. Background Information

4. PKMJF is the owner and operator of the Jet Fuel System located wholly within British Columbia. Since 1969, the Jet Fuel System has been used to transport aviation turbine (jet) fuel from the Westridge Marine Terminal in Burnaby to the Vancouver International Airport ("YVR").[4] Starting in 1990, with the concurrence of the British Columbia Utilities Commission ("BCUC" or "Commission") and shippers, PKMJF's toll applications have been based on the rate base / rate of return methodologies utilized by the National Energy Board ("NEB") and its successor, the Canada Energy Regulator ("CER").[5]

5. On June 4, 2007, PKMJF submitted an application for new tolls effective January 1, 2008. In its Application, PKMJF sought to recover abandonment costs in its tolls, and to assume five-year economic life for depreciation purposes, both of which were denied by the Commission.[6] PKMJF then sought interim and final adjusted Tariffs (No. 37 and 38) on December 30, 2008 covering the remaining periods of 2008 and 2009. These final adjusted Tariffs were the subject of discussions and support of shippers, and as such represent negotiated values. These proposals were largely consistent with the principles adopted in Commission Order P-3-08, except that for 2009 the depreciation expense was based on a 20-year life.[7]

6. On December 7, 2009, PKMJF filed with the Commission an application that, based on a negotiated agreement with its shippers, fixed the annual revenue amounts for the period January 1, 2010 through December 31, 2018. The application also included updated depreciation and amortization rates, to be effective January 1, 2010, and the assumptions used to calculate these rates were included in Appendix 1. The depreciation rates for long-lived assets were based on a 13-year depreciable life, and consistent with the Commission's directives, the depreciation rates in the application did not include any abandonment or negative salvage costs.[8] The Commission reviewed and approved the application, including both the fixed annual revenue amounts and the updated depreciation and amortization rates, effective January 1, 2010.[9]

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[4] PKMJF August 23, 2019 Amended Application, Ex. B-14, pdf p 9.

[5] PKMJF June 4, 2007 Application, Appendix D, p 1.

[6] BCUC Order Number P-3-08.

[7] Bowman Evidence, Ex C2-36-2~~1~~, at A-16.

[8] December 7, 2009 letter (incorrectly dated as December 7, 2010, but I will refer to this as the "December 7, 2009 Letter").

[9] BCUC Order Number P-05-09.

7. On November 29, 2018, PKMJF filed with the BCUC an application for interim approval of Tariff No. 40 and tolls based on the continuation of its existing toll methodology (the "Interim Toll Application"). PKMJF requested approval of the Interim Toll Application pending the outcome of settlement discussions between PKMJF and its shippers, including VAFFC, to explore whether stakeholders could reach a negotiated settlement for final tolls. By Order P-1-18 dated December 14, 2018, the BCUC approved, on an interim and refundable basis, PKMJF's Interim Toll Application effective January 1, 2019 to the earlier of December 31, 2019, or the parties reaching a mutual agreement. By letters dated April 5, 2019, VAFFC and Parkland informed the BCUC that the discussions between PKMJF and its shippers did not produce a negotiated settlement. By letter dated April 29, 2019, PKMJF responded to intervener comments and proposed an amended regulatory timetable to accommodate PKMJF's submission on its detailed application for final tolls.[10] On June 7, 2019, PKMJF submitted its Application to set final tolls for the period January 1, 2019 through December 31, 2021. On August 23, 2019, PKMJF submitted an Amended Application ("2019 Tariff Filing") that updated the abandonment cost estimate and removed a $0.7 million forecasted capital addition from the forecasted 2019 rate base.

3. 2019 Tariff Filing

3.1. Summary

8. In its 2019 Tariff Filing, PKMJF requested approval of its 2019 Forecast Revenue Requirement based on the continuation of the existing annual revenue requirement cost allocation tolling methodology approved by the Commission in Order P-5-09, issued December 16, 2009. The 2019 Tariff Filing applied the same NEB rate base / rate of return methodologies utilized by PKJMF since 1990. The 2019 Forecast Revenue Requirement was escalated 2.0 percent per year, which is 0.5 percent lower than the escalation factor used for the years 2011 through 2018 in the prior negotiated settlement.

9. The 2019 Forecast Revenue Requirement reflected the cost of operation for the pipeline as well as the depreciation of plant in service and other required costs over the expected remaining life of the pipeline, which was three years. PKMJF also requested approval for abandonment costs to be collected annually, as a surcharge, from shippers through a collection mechanism. For the purpose of calculating the annual amount of abandonment costs to be collected through the collection mechanism, PKMJF assumed a 3-year period, consistent with the expected remaining life of the pipeline.

10. In addition to the separate abandonment surcharge, the 2019 Forecast Revenue Requirement was comprised of the following components:

- Return on rate base (return on capital), including a provision for income taxes;
- Depreciation (return of capital); and
- Operating expenses (operating costs).

[10] PKMJF June 7, 2019 Application, Ex. B-8, pdf p 7.

11. I will address each of the revenue requirement components below, and address other issues made by the intervener witnesses. I will also address challenges to the abandonment surcharge.

3.2. Return on Rate Base (Return on Capital), Including a Provision for Income Taxes

3.2.1. Summary

12. In general, return on rate base (which is also commonly referred to as return on capital) is an allowance for interest incurred on long-term debt and a return on equity to compensate investors for the risk of their investment. Return on rate base is calculated by multiplying an oil pipeline's rate base by its weighted average cost of capital. Since the return on rate base is an after-tax return, the revenue requirement also includes a provision for income taxes (which is also commonly referred to as an income tax allowance). The provision for income taxes grosses up the after-tax return on rate base to compensate investors for their estimated tax liability.

13. PKMJF's rate of return is calculated as a weighted average cost of capital. This weighted average cost of capital consists of (1) capital structure ratios, (2) a cost of equity and (3) a cost of debt. Rate base reflects the value of property upon which an oil pipeline carrier is permitted to earn a specified rate of return as established by a regulatory authority. The property portion of PKMJF's rate base is calculated on the basis of a mid-year average. The opening balances for original cost and accumulated depreciation are based on actuals, and the closing balances for original cost and accumulated depreciation are forecast. The mid-year average balances provide the forecast of average net plant in service.

3.2.2. Rate of Return Was Not Contested

14. The intervener witnesses did not propose any adjustments to PKMJF's proposed rate of return on rate base (6.73%).[11]

3.2.3. Rate Base, Including Accumulated Depreciation, is Properly Stated

15. Mr. Bowman proposed reducing PKMJF's December 31, 2018 rate base balance by approximately $0.529 million based on his allegation that PKMJF's accumulated depreciation balance as of December 31, 2018 was understated by $0.529 million. No other adjustments to PKMJF's rate base were proposed by any of the witnesses.

16. Mr. Bowman's support for his proposed adjustment to PKMJF's December 31, 2018 accumulated depreciation balance is set forth in Table 3 of his evidence. His $0.529 million proposed adjustment reflects the cumulative difference in depreciation expense when comparing his proposed approach with the approach used by PKMJF. To simplify his

[11] In VAFFC's response to BCUC's public information request 12.2, dated February 22, 2021, VAFFC confirmed that it "takes no issue with PKMJF's proposals for the calculation and level of return on a prospective basis for the purposes of setting tolls in 2019-2021."

calculation, Mr. Bowman assumed all property was reported in account 153,[12] Line Pipe. For reference, I have included a copy of Mr. Bowman's Table 3 below.

Table 3: Comparison of Application of Life Span to PKMJF Approach

Based on Life Span

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Years Remaining to 2022	13	12	11	10	9	8	7	6	5
Depreciation Rate for new additior	7.69%	8.33%	9.09%	10.00%	11.11%	12.50%	14.29%	16.67%	20.00%
Depreciation for 2010 Additions	23,002	23,002	23,002	23,002	23,002	23,002	23,002	23,002	23,002
Depreciation for 2011 Additions	-	27,773	27,773	27,773	27,773	27,773	27,773	27,773	27,773
Depreciation for 2012 Additions	-	-	32,948	32,948	32,948	32,948	32,948	32,948	32,948
Depreciation for 2013 Additions	-	-	-	76,018	76,018	76,018	76,018	76,018	76,018
Depreciation for 2014 Additions	-	-	-	-	6,529	6,529	6,529	6,529	6,529
Depreciation for 2015 Additions	-	-	-	-	-	55,783	55,783	55,783	55,783
Depreciation for 2016 Additions	-	-	-	-	-	-	17,625	17,625	17,625
Depreciation for 2017 Additions	-	-	-	-	-	-	-	94,957	94,957
Depreciation for 2018 Additions	-	-	-	-	-	-	-	-	60,473
Annual Dep. Exp	**23,002**	**50,776**	**83,724**	**159,742**	**166,271**	**222,054**	**239,678**	**334,635**	**395,108**
							sum 2010-2018		**1,674,991**

As applied by PKMJF

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Years Remaining to 2022	13	12	11	10	9	8	7	6	5
Depreciation Rate for new additior	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%	4.86%
Depreciation for 2010 Additions	14,533	14,533	14,533	14,533	14,533	14,533	14,533	14,533	14,533
Depreciation for 2011 Additions	-	16,197	16,197	16,197	16,197	16,197	16,197	16,197	16,197
Depreciation for 2012 Additions	-	-	17,614	17,614	17,614	17,614	17,614	17,614	17,614
Depreciation for 2013 Additions	-	-	-	36,945	36,945	36,945	36,945	36,945	36,945
Depreciation for 2014 Additions	-	-	-	-	2,856	2,856	2,856	2,856	2,856
Depreciation for 2015 Additions	-	-	-	-	-	55,783	55,783	55,783	55,783
Depreciation for 2016 Additions	-	-	-	-	-	-	17,625	17,625	17,625
Depreciation for 2017 Additions	-	-	-	-	-	-	-	94,957	94,957
Depreciation for 2018 Additions	-	-	-	-	-	-	-	-	60,473
Annual Dep. Exp	**14,533**	**30,730**	**48,345**	**85,289**	**88,145**	**143,928**	**161,552**	**256,509**	**316,982**
							sum 2010-2018		**1,146,014**
							difference		**528,977**

17. As shown in the upper portion of Mr. Bowman's Table 3, for his approach, Mr. Bowman calculated annual depreciation expense using different depreciation rates than those approved by the Commission. He then applied those different depreciation rates using a variable, vintage year approach. This approach introduces three separate errors into his calculations, which I will explain in turn below.

18. First, Mr. Bowman's approach is at odds with the methodology and depreciation rates that were approved by the Commission. Instead of using the composite depreciation rate approved by the Commission for account 153, Line Pipe (4.86%[13]), he contrived new annual depreciation rates (e.g., 7.69% for 2010, 8.33% for 2011, and so on) that are not based on the group method of depreciation for oil pipelines. The 4.86% rate used by PKMJF—and approved by the Commission—was calculated in accordance with the group method of depreciation for oil pipelines. With the group method of depreciation, depreciation expense is

[12] Mr. Bowman's Evidence, Ex C2-36-2~~1~~, at A-29 stated this is account 143, Line Pipe. Line Pipe is account 153 (this is the conventional account for line pipe for oil pipelines), and I will assume account 143 was simply a typographical error.

[13] See depreciation in column (i) for account 153, line pipe, in Appendix 1 of the December 7, 2009 Letter. Column (i) lists the depreciation rates approved by the Commission effective January 1, 2010 in Order Number P-5-09.

computed on the original cost (i.e., property balance before accumulated depreciation) of all property included in each depreciable account (i.e., account 153 is the group) by application of a composite rate of depreciation based on the remaining depreciable life for the group. So, for account 153, the 4.86% composite depreciation rate is to be applied annually[14] to the property balance in account 153. To illustrate, I have included a copy of Appendix 1 of the December 7, 2009 Letter below.

Appendix 1: Depreciation and Amortization rates

Calculation of Depreciation and Amortization Rates to be effective January 1, 2010
($000)

Account Number & Description		Original Cost Dec 31, 2009	Accumulated Depreciation Dec 31, 2009	Net Service Value Dec 31, 2009	2009 Depreciation Expense	Existing Depreciation Rates (%)	Forecast Remaining Life	Proposed Recovery 13 years w exceptions		Revised Remaining Life
(a)		(b)	(c)	(d)	(e)	(f)	(g) = [d / e]	(h)	(i) = [h / b]	(j) = [d / h]
152	Land Rights	98,684	76,040	22,644	1,192	1.21%	19.0	1,742	1.77%	13.0
153	Line Pipe	4,609,863	1,697,754	2,912,109	147,726	3.32%	19.7	224,008	4.86%	13.0
156	Buildings	364,788	175,315	189,474	9,972	2.73%	19.0	14,575	4.00%	13.0
158	Pumping Equipment	1,131,243	454,213	677,031	48,359	4.27%	14.0	52,079	4.60%	13.0
159	Station Lines	2,139,161	960,168	1,178,992	60,986	2.85%	19.3	90,692	4.24%	13.0
160	Other Station Equipment	2,819,995	720,847	2,099,148	110,575	3.92%	19.0	161,473	5.73%	13.0
160C	Central Pipeline Control	251,761	251,761	0	0	0.00%	0.0	0	0.00%	0.0
161	Storage Tanks	1,346,048	488,500	857,548	43,851	3.26%	19.6	65,965	4.90%	13.0
163	Communications [1]	184,066	96,533	87,533	17,507	10.00%	5.0	17,507	10.00%	5.0
165WE	Work Equipment [1]	45,349	45,349	0	0	20.00%	0.0	0	20.00%	0.0
166HW	Computer Hardware [1]	3,789	3,789	0	0	20.00%	0.0	0	20.00%	0.0
166SW	Computer Software [1]	8,625	8,625	0	0	20.00%	0.0	0	20.00%	0.0
189D	AFUDC (Interest)	181,894	105,500	76,394	4,021	2.21%	19.0	5,876	3.23%	13.0
189E	AFUDC (Equity)	179,889	100,726	79,163	4,166	2.32%	19.0	6,089	3.39%	13.0
190	Construction Overhead	3,377,045	1,614,456	1,762,589	92,768	2.75%	19.0	135,584	4.01%	13.0
BS	Costs of Removal [2]		(55,736)	55,736	2,933	5.00%	19.0	4,287	7.69%	13.0
	Total	16,742,201	6,743,841	9,998,360	544,056	3.25%	18.4	779,878		12.8
Base for computed average		16,432,676						775,590	4.72%	

Summary of Depreciation Rates	2009	2010
Depreciation Expense without Balance Sheet ("BS") Costs of Removal	541,122	775,590
Amortization of normal Costs of Removal (and retirements)	2,933	4,287
Total Provision for Pipeline	544,056	779,878

Note(s):

[1] For 2009, the following useful life estimates were used, TMJ does not propose changing these useful life estimates:

Communications	10 years	no change from original assumptions
Work Equip., Computer (soft & hardware)	5 years	no balances to depreciate (rate considered appropriate)

The proposed reduction in useful life is based on amortizing the net book value as January 1, 2010 of the remaining assets over the contract term plus 1/2. Reduction of the useful life to align with the contract term, reduces some of the risk to TMJ for not recovering the full asset value over the term of the negotiated agreement. TMJ further expects that a shipper may continue using the pipeline services after the term of the agreement expires.

[2] Base for computed average (depreciation rate) excludes asset classes that are fully depreciated and amortization of cost of removal.

19. As shown for account 153, the depreciation rate approved by the Commission to be effective January 1, 2010 in column (i) was 4.86%. As shown in column (h), the annual depreciation expense required for account 153 assuming a 13-year depreciable life and the property and

[14] Technically, monthly depreciation expense amounts are computed. In computing monthly charges, the annual percentage rates shall be applied to the depreciation base as of the first of each month and the result divided by twelve.

accumulated depreciation balances as of December 31, 2009 is $224,008. This level of depreciation expense is calculated in accordance with the group method of depreciation by multiplying the property balance for account 153 ($4,609,863) by the composite depreciation rate for account 153 (4.86%).[15] In contrast, Mr. Bowman calculated a proposed depreciation rate to be used only for 2010 additions to account 153 by dividing 1 by the remaining depreciable life of 13 years, resulting in a depreciation rate of 7.69%; a depreciation rate that was not approved by the BCUC nor included on Appendix 1 of the December 7, 2009 Letter.

20. Second, instead of applying the depreciation rate for account 153 for all years until a new rate is approved by the Commission, he incorrectly updated his proposed depreciation rates annually. For example, he developed a new depreciation rate for 2011 additions by dividing 1 by 12 years, resulting in a depreciation rate of 8.33%. Thus, Mr. Bowman calculated variable depreciation rates that are adjusted, and which is not in accordance with those approved in BCUC Order Number P-05-09.

21. Third, he erroneously calculated different depreciation rates for each vintage year of property. For example, he only applies his 7.69% depreciation rate to 2010 property additions, his 8.33% depreciation rate for 2011 additions, and so on. Thus, he is not applying the group method of depreciation, where a single composite depreciation rate is applied to all property included in a depreciable account, regardless of the vintage year of the property.

22. I have personally developed more than ten depreciation studies for oil pipeline companies, and have reviewed dozens of other oil pipeline depreciation studies. To the best of my knowledge, I am not aware of a single oil pipeline company that has used the variable, vintage year approach proposed by Mr. Bowman.

23. Alternatively, the lower portion of Table 3 in Mr. Bowman's Evidence (a copy is included above for reference) attempts to illustrate the approach used by PKMJF. While he presented different depreciation expense amounts for each vintage year of property, in Table 3 he is in fact demonstrating that all amounts in the account 153 group are depreciated using the same composite depreciation rate that was approved by the Commission (4.86%). This depreciation approach is the conventional depreciation approach used by oil pipeline companies, and it is the approach I have used in every depreciation study that I have developed for an oil pipeline company. It is also the conventional approach that has been approved by the NEB. For example, as Attachment EGW-2, I have attached a 2016 depreciation study for Alliance Pipeline Limited Partnership ("Alliance"). As shown on the last page of the depreciation study, the annual depreciation rates are calculated in the same manner as the depreciation rates for PKMJF were calculated. The NEB's approval of the 2016 depreciation study is attached as Attachment EGW-3. The NEB's approval also emphasized that Alliance will need to file a new depreciation study if it needs to modify its depreciation rates (i.e., depreciation rates cannot be updated annually, as Bowman alleges).

[15] Since depreciation rates are typically rounded to 4 decimals, the calculation results in $224,039.

24. In my experience, while oil pipelines do seek to update their depreciation rates periodically, it is not done regularly, and certainly not annually. In VAFFC's response to PKMJF information request 5.2, dated February 22, 2021, while she noted that she does not have experience with jet fuel pipelines, Ms. Lee acknowledged that it is not typical to have depreciation studies filed annually. For example, the United States Federal Energy Regulatory Commission ("FERC") issued 202 oil pipeline depreciation orders between December 1999 and January 2020, for 168 different companies. This is an average of 1.2 depreciation orders per oil pipeline company over approximately 20 years. That an oil pipeline company is not required to file new depreciation studies annually is demonstrated in a FERC rate proceeding assessing 2008 tariff rates, where the FERC determined "that the depreciation rates developed in the 1991 [depreciation] study continue to be within the zone of reasonableness [in 2008, 17 years later]."[16] Oil pipeline companies may request to update their depreciation rates periodically when their circumstances change, such as when a competing pipeline will be built or a crude field will be depleted.

25. Thus, it appears that Mr. Bowman has a fundamental misunderstanding of how depreciation rates are calculated and applied in accordance with the group method of depreciation for oil pipelines, and correspondingly his proposed adjustment to PKMJF's December 31, 2018 accumulated depreciation balance is fundamentally flawed, contravenes BCUC Order Number P-05-09, and should be rejected.

3.2.4. Provision for Income Taxes is Calculated in Accordance with BCUC Directives

26. Ms. Davies recommended including PKMJF's 2019 income taxes per its income statement in its revenue requirement [redacted]).[17] Ms. Davies' recommendation cannot be relied upon because it does not comply with the BCUC's directives on how PKMJF's income tax provision should be calculated. Moreover, Ms. Davies' recommendation to use amounts per PKMJF's 2019 income statement does not recognize differences from amounts underlying PKMJF's revenue requirement.

27. The calculation of the amount of the income tax provision included in PKMJF's 2019 Tariff Filing ($0.648 million) was calculated using the same flow-through basis that has been used by PKMJF in its prior tariff filings in accordance with BCUC directives.[18] For example, see Ex. C2-36-2~~1~~ at pdf page 169 that was attached as Intervener Evidence as an example in a prior tariff filing, which I have included below for reference. PKMJF's 2019 Toll Application properly applied the same flow-through basis to calculate its provision for income taxes, and Ms. Davies did not challenge PKMJF's calculation of its income tax provision.

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[16] *SFPP, L.P.,* Opinion No. 511, 134 FERC ¶ 61,121 at P 49 (2011) ("Opinion No. 511").

[17] Davies Evidence, Ex C2-36-1, [redacted].

[18] In 1994 PKMJF was directed to calculate its provision for income taxes on a flow-through basis (BCUC Decision and Order No. P-2-94, Trans Mountain Enterprises of British Columbia Limited, 1993 Toll Application and Complaint Submitted by Canadian Airlines International Ltd. and Vancouver Airport Fuel Facilities Corporation, March 25, 1994, ch 7.3, PDF page 25 of 33).

Application for Tolls
Schedule 12
Provision for Income Taxes Payable
($000)

				2007 Actual	2008 Estimate	2009 Proposed
Return on Rate Base	Rate Base	*	Rate			
	2007	(10,101	* 7.29%)	736		
	2008	(9,944	* 7.77%)		773	
	2009	(9,775	* 7.71%)			753
LESS: Deemed interest component						
	2007	(10,101	* 3.48%)	352		
	2008	(9,944	* 3.85%)		383	
	2009	(9,775	* 3.85%)			376
Return related to deemed equity				384	390	377
Adjustments for Permanent and Timing Differences:						
Depreciation expense on:						
i) plant costs not allowable for tax purposes				2	2	1
ii) Equity AFUDC				7	7	4
iii) all other plant accounts				415	411	540
Capital Cost Allowance				(428)	(403)	(376)
Interest AFUDC				0	0	0
Total 2007 ILI and RCC expensed for tax purposed				(287)		
Surcharge Revenue Refund				(15)	15	
2007 ILI and RCC recovered in tolls and reversed for tax				57	65	72
				(249)	96	241
Taxable Income - Income Tax Base				135	486	618
Provision for Income Taxes Payable	Tax Base	*	Rate			
(Income Tax Base x tax rate / (1-tax rate))						
	2007	135	* 34.12%	70		
	2008	486	* 31.00%		218	
	2009	618	* 30.00%			265
Provision for Cash Income Taxes						
(Income Tax Base x tax rate)						
	2007	135	34.12%	46		
	2008	486	31.00%		151	
	2009	618	30.00%			185

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28. Rather, Ms. Davies simply observed that the amount of income tax expense reported on PKMJF's 2019 income statement was [redacted] than the income tax provision included in PKMJF's revenue requirement, and recommended using the [redacted] amount. However, even assuming *arguendo* that it is reasonable to use amounts as reported on PKMJF's income statements for purposes of calculating a revenue requirement, Ms. Davies recommendation does not recognize differences from PKMJF's revenue requirement. For example, in its 2019 revenue requirement, PKMJF included a substantially lower normalized amount of integrity expense ($0.541 million) than was reported in 2019 ($1.350 million)[19] From an income statement perspective, all else equal, reporting higher expenses (e.g., 2019 integrity expense) results in reporting lower net income, and correspondingly reporting a lower amount of income tax. Indeed, PKMJF reported a lower amount of integrity expense in 2018 ($0.250 million),[20]

[19] Schedule 18 of PKMJF's 2019 Toll Application.

[20] Response to BCUC Information Request No. 2, Section 4.5, page 20 0f 72. The 2017 amount of integrity spend was $1.2 million, illustrating that that amount of integrity expense may vary year over year.

and its 2018 income tax expense as reported on its income statement [redacted][21]) was substantially [redacted] than the 2019 income statement amount relied upon by Ms. Davies [redacted]).

3.3. Depreciation Expense (Return of Capital)

29. Depreciation (which is also commonly referred to as return of capital) is the recovery of invested capital in the regulated asset over its life through periodic charges to depreciation (of property). As such, depreciation is an essential component of cost of service. I will address below the issues Ms. Lee raised regarding PKMJF's 2019 depreciation study.

3.3.1. PKMJF's Treatment of Cost of Removal is Reasonable and Was Previously Approved by the BCUC

30. Cost of removal for oil pipelines relates to interim retirements that occur throughout the lifetime of the pipeline, and not the ultimate abandonment of the pipeline. An example of cost of removal for an oil pipeline is the cutout, removal, and disposal of a replaced valve or prover.[22] As Ms. Lee acknowledges, PKMJF's treatment of cost of removal for depreciation purposes "was found acceptable in 2009 by all parties."[23] PKMJF's 2019 depreciation study uses the same approach that was found acceptable in 2009 and used in PKMJF's 2010 depreciation study.

31. I agree with Ms. Lee's statement that cost of removal is typically charged to accumulated depreciation, but as Ms. Lee explained in her evidence, PKMJF has accounted for cost of removal as it does due to previously changing fixed asset systems.[24] Moreover, PKMJF's depreciation treatment of cost of removal has the same impact as had it been charged directly to accumulated depreciation for each account. For example, if cost of removal is charged directly to accumulated depreciation for each account, net book value is increased for that account (accumulated depreciation is reduced, so net book value is increased), and additional future depreciation expense (equal to the amount of cost of removal) will be required to fully depreciate the account. When reviewing PKMJF's 2019 depreciation study (or 2010 depreciation study), one can see that the same treatment is being applied by PKMJF, in total as opposed to as by individual account. For example, cost of removal is treated as negative accumulated depreciation (analogous to charging to accumulated depreciation), and that amount is depreciated over the remaining depreciable life. While the presentation is different, the resulting impact is the same. Thus, PKMJF's treatment of cost of removal is reasonable and consistent with the approach previously approved by the BCUC.

[21] This 2018 income statement amount [redacted]) is also noted in Ms. Davies Evidence, Ex C2-36-1, [redacted]

[22] Ms. Lee agrees with this definition. See Lee Evidence, Ex C2-36-2~~1~~, at C-10.

[23] Lee Evidence, Ex C2-36-2~~1~~, at C-11.

[24] Lee Evidence, Ex C2-36-2~~1~~, at C-10.

3.3.2. PKMJF's Proposed Remaining Life is Appropriate

32. As discussed in more detail in PKMJF's rebuttal evidence, PKMJF submits its proposed remaining life to be used to calculate its depreciation rates is appropriate. I will not repeat that discussion in my report.

3.3.3. Ms. Lee (and Mr. Bowman) Appear to Fundamentally Misunderstand How Depreciation Rates are Developed for Oil Pipeline Companies

33. As I addressed above in my discussion regarding rate base and accumulated depreciation, Mr. Bowman proposed applying different annual depreciation rates using his unique variable, vintage year approach. As I explained above, I am not aware of any oil pipeline that has used the approach proposed by Mr. Bowman. In addition, it is not the approach that was approved previously for PKMJF by the BCUC, and it appears that Mr. Bowman has a fundamental misunderstanding of how depreciation rates are calculated and applied for oil pipeline companies in accordance with the group method of depreciation. It appears that Ms. Lee's views regarding the calculation of depreciation rates and depreciation expense[25] are aligned with Mr. Bowman's views. Since I already addressed the errors introduced with Mr. Bowman's approach regarding the calculation of depreciation expense, I will not repeat that discussion in my report.

3.3.4. PKMJF Properly Calculated Its Proposed Depreciation Rates to Be Effective January 1, 2019

34. In developing PKMJF's 2019 depreciation study, I replicated the approach that was used by PKMJF in its 2010 depreciation study, including column headings. The approach that PKMJF used for its 2010 depreciation study was conceptually consistent with depreciation studies that I have developed for other oil pipeline companies, and with other depreciation studies that I have reviewed for other oil pipeline companies. Ms. Lee correctly states that in developing a depreciation study, the remaining life is calculated first, and then the depreciation rate is calculated.[26] That is what was done for PKMJF's 2010 depreciation study, and what I did in PKMJF's 2019 depreciation study. It appears that Ms. Lee is not familiar with how the math conventionally works in oil pipeline depreciation studies, so I will explain the math, first using PKMJF's 2019 depreciation study[27] as my basis, and then using other depreciation studies submitted at the NEB and the FERC. I have included a copy of PKMJF's amended 2019 depreciation study below for reference.

[25] Lee Evidence, Ex C2-36-2~~1~~, at C-12 to C-13.

[26] Lee Evidence, Ex C2-36-2~~1~~, at C-12.

[27] Schedule 5 of PKMJF's 2019 Tariff Filing Revenue Requirement Analysis.

Kinder Morgan Canada (Jet Fuel Line)
Schedule 5
2019 Depreciation Study
Calculation of Depreciation and Amortization Rates to be Effective January 1, 2019

Account	Number & Description	Original Cost 12/31/2018	Accumulated Depreciation 12/31/2018	Net Service Value 12/31/2018	2018 Depreciation Expense	Existing Depreciation Rates	Forecast Remaining Life	Proposed Recovery 3 Years w Exception		Revised Remaining Life
(a)		(b)	(c)	(d)	(e)	(f)	(g) = [d / e] [1/]	(h)	(i) = [h / b]	(j) = [d / h]
152	Land Rights	98,683.73	91,762.48	6,921.25	1,746.70	1.77%	4.0	2,307.08	2.34%	3.0
153	Line Pipe ~~[2/]~~	6,107,724.24	3,558,941.50	2,548,782.74	282,472.58	4.86%	9.0	849,594.25	13.91%	3.0
156	Buildings	480,479.33	341,743.90	138,735.43	19,219.18	4.00%	7.2	46,245.14	9.62%	3.0
158	Pumping Equipment	1,138,930.25	900,553.22	238,377.03	52,390.80	4.60%	4.5	79,459.01	6.98%	3.0
159	Station Lines	1,931,570.82	1,572,956.16	358,614.66	81,898.61	4.24%	4.4	119,538.22	6.19%	3.0
160	Other Station Equipment	2,760,133.99	1,989,824.62	770,309.37	153,627.16	5.73%	5.0	256,769.79	9.30%	3.0
160C	Central Pipeline Control	329,325.99	329,325.99	-	-	0.00%	na	-	0.00%	na
161	Storage Tanks	1,878,251.02	1,228,896.83	649,354.19	91,993.66	4.90%	7.1	216,451.40	11.52%	3.0
163	Communications	239,200.52	223,358.50	15,842.02	5,513.46	10.00%	2.9	5,280.67	2.21%	3.0
185WE	Work Equipment	51,974.45	47,999.11	3,975.34	1,325.12	20.00%	3.0	1,325.11	2.55%	3.0
186HW	Computer Hardware	3,789.43	3,789.43	-	-	20.00%	na	-	0.00%	na
186SW	Computer Software	8,625.11	8,625.11	-	-	20.00%	na	-	0.00%	na
189D	AFUDC (Interest)	149,198.01	132,466.61	16,731.40	4,819.10	3.23%	3.5	5,577.13	3.74%	3.0
189E	AFUDC (Equity)	160,050.56	136,072.52	23,978.04	5,425.72	3.39%	4.4	7,992.68	4.99%	3.0
190	Construction Overhead	3,252,311.99	2,773,177.53	479,134.46	130,417.68	4.01%	3.7	159,711.49	4.91%	3.0
BS	Cost of Removal	-	(404,795.28)	404,795.28	49,516.56	7.69%	8.2	134,931.76	33.33%	3.0
	Total	18,590,249.44	12,934,698.23	5,655,551.21	880,366.33		6.4	1,885,183.74		

Summary of Depreciation Rates	**2018**	**2019**
Depreciation Expense without Costs of Removal	830,849.77	1,750,251.98
Amortization of normal Costs of Removal	49,516.56	134,931.76
Total Provision for Pipeline	880,366.33	1,885,183.74

Notes:
[1/] Reflects depreciation and amortization effective as of January 1, 2010.

35. Column (d) in the 2019 depreciation study reflects PKMJF's net service value as of December 31, 2018. This is also commonly referred to as net book value, and it represents the amount of property that is yet to be depreciated. Column (h) in the 2019 depreciation study reflects the proposed recovery (i.e., depreciation expense) assuming a 3-year depreciable life. When reviewing the excel spreadsheet that supported this analysis,[28] these amounts reflect the net service value as of December 31, 2019 divided by 3 years. Column (j), labeled revised remaining life, provides a check that the math was performed properly. To do this, the revised remaining life is calculated by dividing column (d) by column (h). Since a 3-year remaining life was used to calculate the proposed recovery in column (h), the revised remaining life in column (j) needs to be 3 if the math was performed properly.

36. Since under the group method of depreciation for oil pipelines the depreciation rates are applied to gross property balances (shown in column (b) in the 2019 depreciation study, labeled as Original Cost 12/31/2018), another mathematical step is required to calculate depreciation rates. As shown on column (i) of the 2019 depreciation study, the depreciation rate for each account is calculated by dividing column (h) by column (b). Thus, those depreciation rates presented on column (i) are to be used going forward, multiplying the gross property balance in each account by the applicable depreciation rate.

37. To demonstrate that PKMJF's approach is also the conventional approach used by the NEB, I will refer to the last page in the Alliance depreciation study attached as Attachment EGW-3.

[28] PKMJF Response to Parkland IR No. 2, Ex B-39, 1-Appendix Parkland IR-9.1.

While the presentation is somewhat different, the math is identical to that applied in PKMJF's 2010 and 2019 depreciation studies.[29] For example, the calculated annual depreciation calculated for account 461.00 Land Rights ($1,214,324.24) reflects the future accruals ($233,072,160.52) (also commonly referred to as net service value or net book value) divided by the remaining life (19 years). The calculated annual accrual rate (2.45%) (also commonly referred to as depreciation rate) is then calculated by dividing depreciation expense ($1,214,324.24) by the gross property balance ($49,491,289.76).

38. Additionally, to demonstrate that PKMJF's approach is the conventional approach used by the FERC, I have attached a 2020 depreciation study that I recently developed for another oil pipeline company, Bridger Pipeline LLC ("Bridger") at Attachment EGW-4. The FERC's approval of the 2020 depreciation study on October 13, 2020 is attached as Attachment EGW-5. As shown on Attachment A of Bridger's 2020 depreciation study, the annual depreciation rates are calculated in the same manner as the depreciation rates for PKMJF were calculated (and for Alliance). For example, the required depreciation expense calculated for account 102 Right of Way ($488,962) reflects the net book value ($14,668,845) divided by the remaining life (30 years). The proposed depreciation rate (2.79%) is then calculated by dividing required depreciation expense ($488,962) by the gross property balance ($17,551,629).

39. In responding to a PKMJF information request 4.12.2 and 4.12.3, and in attempting to support its unique variable, vintage year approach to calculate depreciation expense, VAFFC alleged that "[w]hile Mr. Bowman is not aware of any application of the specific concept of terminal life or life span dates being applied to jet fuel pipelines specifically, the concept of a terminal life or life span date is pervasive throughout utility depreciation studies and the setting of revenue requirements. The concept is so ubiquitous that it is almost trite to provide "examples", but consider the following list, which is limited to a small sample of examples from Gannett Fleming (the firm previously retained by PKMJF for its 2007 depreciation studies)."[30] As an example, VAFFC provided a depreciation study developed for Enbridge Gas Distribution, Inc. ("Enbridge"), which I have included as Attachment EGW-6. However, upon reviewing the Enbridge depreciation study calculations at pages 44 and 45, it clearly does not support Mr. Bowman's unique variable, vintage year approach. Rather, the math is the same as that applied in PKMJF's 2010 and 2019 depreciation studies. For example, the calculated accrual amount (also commonly referred to as annual depreciation) for account 451.00 Land Rights ($471,763) reflects the future accruals ($19,774,166) (also commonly referred to as net service value or net book value) divided by the remaining life (41.9 years[31]). The calculated annual accrual rate (1.16%) (also commonly referred to as depreciation rate) is then calculated by dividing depreciation expense ($471,763) by the original cost gross property balance ($40,677,681).

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[29] The Alliance Depreciation Study was developed by Gannett Fleming, which in VAFFC's responses to PKMJF's information request 4.12, dated February 22, 2021, was previously retained by PKMJF for its 2007 depreciation studies.

[30] VAFFC Reply to PKMJF IRs 4.12.2 and 4.12.3, Ex C2-43-1~~BCUC IR 2.2~~, dated February 22, 2021.

[31] Support for the calculation of the 41.9 year average remaining life for the entire group of assets in account 451.00 is set forth at page 110 of the Enbridge depreciation study. This applies the same type of calculations as used in 2010 and 2019 PKMJF's depreciation studies.

40. I do not agree that the unique variable, vintage year approach proposed by VAFFC to calculate depreciation expense is a ubiquitous approach for oil pipelines, and in fact, it is the opposite: it is an abnormal approach that I am not aware of any oil pipeline having ever used before. Alternatively, the approach used by PKMJF to calculate its depreciation rates applies the conventional approach used by oil pipeline companies in accordance with the group method of depreciation and is consistent with the approach previously approved by the BCUC.

3.4. Operating Expenses

41. PKMJF's evidence addresses operating expenses, and I will not repeat that discussion in my report.

3.5. Abandonment Surcharge

3.5.1. Summary

42. In its 2019 Tariff Filing, PKMJF included a separate abandonment cost collection mechanism based on the methodology set forth in NEB Decision RH-2-2008 regarding financial issues for pipeline abandonment. Neither VAFFC nor Parkland proposed adjustments to the abandonment cost collection mechanism itself. However, as I address below, the following inputs used in the abandonment calculation were challenged:

- The abandonment cost estimate, including if any abandonment costs have already been collected (line 1 in the abandonment cost collection mechanism at Schedule 21 in the 2019 Tariff Filing)
- The collection period (line 3 in the abandonment cost collection mechanism at Schedule 21 in the 2019 Tariff Filing)

3.5.2. The Abandonment Cost Estimate is Properly Stated

43. As discussed in more detail in PKMJF's rebuttal evidence, PKMJF's submits that its total abandonment cost estimate included in its 2019 Tariff Filing is properly stated. I will not repeat that discussion in my report.

3.5.3. PKMJF Has Not Previously Collected Abandonment Costs

44. Mr. Bowman claims that it is reasonable to "set forward-looking tolls today in the wake of the negotiated settlement" assuming that PKMJF had already collected between $2.556 million and $3.671 million in abandonment costs during the 2010-2018 negotiated settlement.[32] Ms. Lee acknowledges that the BCUC denied PKMJF's request in 2007 to start collecting abandonment costs, but claims that PKMJF should have sought collection prior to its 2019 Tariff Filing.[33]

[32] Bowman Evidence, Ex C2-36-2~~1~~, at A-24 to A-25.

[33] Lee Evidence, Ex C2-36-2~~1~~, at D-5 to D-9.

45. As I discuss below, PKMJF had previously sought to collect abandonment costs in its tolls, but its request was denied by the BCUC as being premature, and PKMJF's current request to start collecting abandonment costs in 2019 is timely. There is also evidence that abandonment costs were not intended to be included in the 2010-2018 negotiated settlement. Moreover, when confronting similar circumstances, the NEB and the FERC have not assumed that oil pipelines have already recovered some of their abandonment costs. Therefore, in my opinion, it is inappropriate and unreasonable to assume that PKMJF has already recovered some of its abandonment costs during the 2010-2018 negotiated settlement time period. In addition, it is my understanding that Mr. Bowman's claim that PKMJF has already collected some portion of its abandonment costs violates the retroactive ratemaking doctrine.

3.5.3.1. PKMJF's Prior Request Was Denied

46. In BCUC Order Number P-3-09, dated February 13, 2008, the BCUC denied PKMJF's request to recover abandonment costs in its tolls. As Ms. Lee acknowledged in her evidence, the BCUC found that it was premature for PKMJF to start collecting abandonment costs in its tolls because "VAFFC had not yet made a firm and final decision with regard to the bypass and because Parkland would likely take the same amount of Jet Fuel."[34]

3.5.3.2. PKMJF's Current Request Is Timely

47. As discussed in more detail in PKMJF's evidence, substantial start of the VAFD project was not confirmed by the British Columbia Environmental Assessment Office until September 18, 2018. Thus, in my view, PKMJF's application (submitted on June 7, 2019) requesting recovery of abandonment costs was timely given its circumstances.

3.5.3.3. There is Evidence that Abandonment Costs Were Not Included in the 2010-2018 Negotiated Settlement

48. As all parties acknowledge, PKMJF proposed including abandonment costs in its 2007 Tariff Filing, treating those costs as negative salvage costs to be depreciated over five years. PKMJF's proposed treatment of its abandonment costs is clear when reviewing its 2007 Tariff Filing, Appendix D, Schedule 9, Summary of Depreciation Study Results, which I have included below for reference.

[34] Lee Evidence, Ex C2-36-2~~1~~, at D-5.

Application for Tolls
Schedule 9
Summary of Depreciation Study Results
($000)

Account Number and Description		Original Cost Dec 31, 2007	Net Salvage Provision	Total Service Value	Accumulated Depreciation Dec 31, 2007	Net Service Value Dec 31, 2007	Remaining Economic Life	Annual Depreciation Expense	Depreciation Rate(%)
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
152	Land Rights	98,684		98,684	73,032	25,651	5	5,130	5.199
153	Line Pipe	4,344,447		4,344,447	1,374,282	2,970,164	5	594,033	13.673
156	Buildings	364,788		364,788	146,715	218,073	5	43,615	11.956
158	Pumping Equipment	1,131,243		1,131,243	330,388	800,856	5	160,171	14.159
159	Station Lines	2,092,011		2,092,011	776,397	1,315,615	5	263,123	12.578
160	Other Station Equipment	2,819,995		2,819,995	534,614	2,285,380	5	457,076	16.208
160C	Central Pipeline Control	251,761		251,761	239,687	12,074	5	2,415	0.959
161	Storage Tanks	1,276,059		1,276,059	415,811	860,249	5	172,050	13.483
163	Communications	184,066		184,066	44,914	139,152	5	27,830	15.120
185WE	Work Equipment	60,349		60,349	45,349	15,000	5	3,000	4.971
186HW	Computer Hardware	3,789		3,789	3,789	0	5	0	0.000
186SW	Computer Software	8,625		8,625	8,625	0	5	0	0.000
189D	AFUDC (Interest)	181,894		181,894	87,655	94,239	5	18,848	10.362
189E	AFUDC (Equity)	179,889		179,889	82,888	97,001	5	19,400	10.785
190	Construction Overhead	3,377,045		3,377,045	1,275,444	2,101,601	5	420,320	12.446
190	Cost of Net Salvage / Removal		2,525,100	2,525,100	(58,669)	2,583,769	5	516,754	20.000
		16,374,646	2,525,100	18,899,746	5,380,922	13,518,824		2,703,765	16.510

Depreciation Expense without Negative Salvage Provision	2,187,011
Negative Salvage Provision	516,754
Total Provision for Pipeline	2,703,765

49. As shown on the bottom row of Schedule 9 in PKMJF's 2007 Tariff Filing, labeled "Cost of Net Salvage / Removal," PKMJF included $2.525 million under the column (c), labeled "Net Salvage Provision." As shown in column (g), PKMJF proposed depreciating those abandonment (negative salvage) costs over 5 years. PKMJF also included a minor amount for cost of removal.

50. In its 2010 depreciation study,[35] which was approved in BCUC Order Number P-5-09, the net salvage provision column is no longer included. I have included a copy of PKMJF's 2010 depreciation study below for references.

[35] Included as Appendix 1 of PKMJF's December 7, 2009 Letter.

Appendix 1: Depreciation and Amortization rates

Calculation of Depreciation and Amortization Rates to be effective January 1, 2010
($000)

Account Number & Description		Original Cost Dec 31, 2009	Accumulated Depreciation Dec 31, 2009	Net Service Value Dec 31, 2009	2009 Depreciation Expense	Existing Depreciation Rates (%)	Forecast Remaining Life	Proposed Recovery 13 years w exceptions		Revised Remaining Life
(a)		(b)	(c)	(d)	(e)	(f)	(g) = [d / e]	(h)	(i) = [h / b]	(j) = [d / h]
152	Land Rights	98,684	76,040	22,644	1,192	1.21%	19.0	1,742	1.77%	13.0
153	Line Pipe	4,609,863	1,697,754	2,912,109	147,726	3.32%	19.7	224,008	4.86%	13.0
156	Buildings	364,788	175,315	189,474	9,972	2.73%	19.0	14,575	4.00%	13.0
158	Pumping Equipment	1,131,243	454,213	677,031	48,359	4.27%	14.0	52,079	4.60%	13.0
159	Station Lines	2,139,161	960,168	1,178,992	60,986	2.85%	19.3	90,692	4.24%	13.0
160	Other Station Equipment	2,819,995	720,847	2,099,148	110,575	3.92%	19.0	161,473	5.73%	13.0
160C	Central Pipeline Control	251,761	251,761	0	0	0.00%	0.0	0	0.00%	0.0
161	Storage Tanks	1,346,048	488,500	857,548	43,851	3.26%	19.6	65,965	4.90%	13.0
163	Communications [1]	184,066	96,533	87,533	17,507	10.00%	5.0	17,507	10.00%	5.0
185WE	Work Equipment [1]	45,349	45,349	0	0	20.00%	0.0	0	20.00%	0.0
186HW	Computer Hardware [1]	3,789	3,789	0	0	20.00%	0.0	0	20.00%	0.0
186SW	Computer Software [1]	8,625	8,625	0	0	20.00%	0.0	0	20.00%	0.0
189D	AFUDC (Interest)	181,894	105,500	76,394	4,021	2.21%	19.0	5,876	3.23%	13.0
189E	AFUDC (Equity)	179,889	100,726	79,163	4,166	2.32%	19.0	6,089	3.39%	13.0
190	Construction Overhead	3,377,045	1,614,456	1,762,589	92,768	2.75%	19.0	135,584	4.01%	13.0
BS	Costs of Removal [2]		(55,736)	55,736	2,933	5.00%	19.0	4,287	7.69%	13.0
	Total	16,742,201	6,743,841	9,998,360	544,056	3.25%	18.4	779,878		12.8
Base for computed average		16,432,676						775,590	4.72%	

Summary of Depreciation Rates	2009	2010
Depreciation Expense without Balance Sheet ("BS") Costs of Removal	541,122	775,590
Amortization of normal Costs of Removal (and retirements)	2,933	4,287
Total Provision for Pipeline	544,056	779,878

Note(s):

[1] For 2009, the following useful life estimates were used, TMJ does not propose changing these useful life estimates:

Communications	10 years	no change from original assumptions
Work Equip., Computer (soft & hardware)	5 years	no balances to depreciate (rate considered appropriate)

The proposed reduction in useful life is based on amortizing the net book value as January 1, 2010 of the remaining assets over the contract term plus 1/2. Reduction of the useful life to align with the contract term, reduces some of the risk to TMJ for not recovering the full asset value over the term of the negotiated agreement. TMJ further expects that a shipper may continue using the pipeline services after the term of the agreement expires.

[2] Base for computed average (depreciation rate) excludes asset classes that are fully depreciated and amortization of cost of removal.

51. In its 2010 depreciation study, PKMJF labeled the bottom row of the schedule as "Costs of Removal," and only included a minor amount cost of removal (i.e., Net Salvage is not included). Given that the BCUC denied PKMJF's request to include abandonment costs in its tolls, it is clear that PKMJF purposely excluded abandonment costs from its 2010 depreciation study, and from its calculation of depreciation from December 1, 2010 and forward.

52. Moreover, Parkland witness Mr. Dyack evaluated whether PKMJF collected abandonment costs prior to 2019, and determined "that prior to 2019, PKMJF did not account for or collect abandonment liabilities and costs."[36]

[36] Evidence of Mr. Dyack at 9-10 (Ex. C1-19-02~~1~~, PDF p 10-11) (emphasis added).

3.5.3.4. Precedent from Other Regulators Supports Including Total Abandonment Costs in PKMJF's Cost Collection Mechanism

53. Mr. Bowman's claim that PKMJF has already collected a portion of its abandonment costs contradicts the approach taken by other North American oil pipeline regulators when establishing methods for determining abandonment costs and developing cost collection mechanisms to collect such costs.

54. For example, starting in 2009, the NEB issued Decisions regarding the financial issues related to oil pipeline abandonment.[37] In its RH-2-2008 Decision, the NEB indicated that the key issue it evaluated was determining "the optimal way to ensure that funds are available when abandonment costs are incurred."[38] In its RH-2-2008 Decision, the NEB further explained that it is in the public interest that all pipelines regulated by the NEB be abandoned safely and effectively, that abandonment costs are a legitimate cost of providing service and are recoverable upon regulatory approval by users of the system, and that funds for abandonment costs should not be collected as part of depreciation and should be a separate element of cost of service. The RH-2-2008 Decision applied to existing pipelines that had been in service for many years, and did not assume that those pipelines had collected some portion of abandonment costs in prior tolls. For example, the NEB approved full abandonment collection estimates for oil pipelines such as PKM Cochin ULC's, which commenced operations in 1979.[39] In responding to a PKMJF information request, Ms. Lee acknowledged that she was not aware of any instances where the NEB assumed that existing oil pipelines had already collected some or all of their abandonment costs in prior tolls.[40]

55. Similarly, Mr. Bowman's position conflicts with FERC precedent. Both in *Kuparuk*[41] and *Seaway*,[42] where abandonment cost collection mechanisms were granted, the oil pipeline assets already existed prior to the authorization of collecting those costs in tariff rates,[43] yet in neither case did the FERC presume that abandonment costs had already been collected in the past. Indeed, in *Seaway*, the relevant pipeline assets existed since 1962, and yet the FERC granted full cost recovery in forward looking-tariff rates beginning in 2016.

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[37] NEB Reasons for Decision, Land Matters Consultation Initiative Stream 3, Pipeline Abandonment - Financial Issues, RH-2-2008 (May 2009) and NEB Revisions to Preliminary Base Case Assumptions (4 March 2010).

[38] NEB Reasons for Decision, Land Matters Consultation Initiative Stream 3, Pipeline Abandonment - Financial Issues, RH-2-2008 (May 2009) at 1 ("In January 2008, the National Energy Board (Board) identified a proposed approach for the Land Matters Consultative Initiative (LMCI), consisting of four distinct topic streams. One of the four topic streams, Stream 3, is "Pipeline Abandonment – Financial Issues". The Board indicated that the key issue to be considered in respect of that topic stream is the following: What is the optimal way to ensure that funds are available when abandonment costs are incurred?").

[39] NEB MH-001-2012 Reasons for Decision, Revised Abandonment Cost Estimates (27 December 2013).

[40] VAFFC Reply to PKMJF IR 6.1, dated February 22, 2021.

[41] *Kuparuk Transp. Co.*, 55 FERC ¶ 61,122 at 61,382.

[42] *Seaway Crude Pipeline Co., LLC*, Opinion No. 546, 154 FERC ¶ 61,070.

[43] The FERC uses the term rate instead of toll. I will use toll and tariff interchangeably in this report.

3.5.3.5. To Assume Prior Collection of Abandonment Costs Violates the Retroactive Ratemaking Doctrine

56. While I am not an attorney, and I am not expressing a legal opinion, it is my understanding that Mr. Bowman's claim that PKMJF has already collected a portion of its abandonment costs through an alleged over-recovery of costs violates the retroactive ratemaking doctrine, which prohibits a regulator from adjusting current rates to compensate for previous over- or under-recovery of costs in prior periods.

3.5.4. The Collection Period Needs to be Synchronized with the Remaining Economic Life

57. An abandonment surcharge is intended to recover the future costs of removing and retiring facilities. Since the oil pipeline has no opportunity to collect revenue from shippers to cover these costs after it has ceased to operate, it is appropriate to recover these costs prior to the abandonment of the oil pipeline. Thus, the collection period for abandonment costs needs to be synchronized with the remaining economic life of the oil pipeline. This is consistent with the principles expressed in NEB Decision MH-001-2013, which approved the set-aside and collection mechanisms for abandonment cost funding, where the NEB explained that the "timing of abandonment of a pipeline for the purpose of establishing future abandonment costs should be the shorter of the anticipated economic life or physical life," and that "abandonment costs are a legitimate cost of providing service and are recoverable upon Board approval from users of the system."[44]

58. Applying these principles, in NEB Decision MH-001-2013, Enbridge Pipelines (NW) Inc. ("Enbridge NW") proposed a collection period of six years. Enbridge NW noted that remaining established reserves in the mainland Northwest Territories and Yukon are approximately 62.8 million barrels according to the NEB's Annual Energy Overview for 2013. At current production levels, there are approximately 13 years of remaining productive capacity from the region. Enbridge NW noted that although there is also potential for exploitation of shale oil resources, the remaining contract life of the anchor shipper on its system at the onset of collection of funds for abandonment is six years.

4. Use of Acquisition Amounts is Not Applicable for Ratemaking Purposes

59. Mr. Dyack observed that there were differences between the 2019-2021 revenues included in PKMJF's 2019 Tariff Filing and [redacted].[45] As an initial matter, as discussed in more detail in PKMJF's rebuttal evidence, the acquisition of the Jet Fuel system represented a very small part of a very large $4.3 billion transaction. I will not repeat that discussion in my report. Moreover, PKMJF's 2019 tariff application set forth the appropriate assumptions and cost support required to evaluate its cost of service. In my view, a comparison with forecasted revenues included in acquisition support for a minor system that was part of a much larger

[44] NEB MH-001-2013 Reasons for Decision, Set-aside and collection mechanisms (May 2014).

[45] Evidence of Mr. Dyack at [redacted] (Ex. C1-19-01, [redacted]).

acquisition does not provide evidence that can be relied upon when evaluating PKMJF's cost of service. Indeed, in responding to a BCUC information request, Mr. Dyack acknowledged that his [redacted][46] and that [redacted][47] In responding to another BCUC information request, VAFFC appears to concur, stating that "[redacted]."[48]

60. Mr. Dyack also stated that [redacted][49]

61. [redacted]. As an initial matter, oil pipeline cost of service is typically developed based on original cost amounts as opposed to acquisition amounts.[50] [redacted] The concern behind the general rule against purchase price adjustments is that one pipeline company will sell an asset to another pipeline company at an inflated price so that the second company can achieve a higher rate base than it would otherwise, causing that pipeline's shippers to pay twice for the same asset. [redacted] Abandonment costs are legitimate costs of operating an oil pipeline that are properly recoverable in tolls, whether the pipeline system is sold or not. Since PKMJF will have no opportunity to collect revenue from shippers to cover these costs after it has ceased to operate, it is appropriate and necessary to recover these costs in tolls prior to the abandonment.

[46] Parkland Reply to BCUC Confidential IR [redacted], provided February 22, 2021.

[47] Parkland Reply to BCUC Confidential IR [redacted], provided February 22, 2021.

[48] VAFFC Reply to BCUC Confidential IR [redacted], dated February 22, 2021.

[49] Evidence of Mr. Dyack at [redacted] (Ex. C1-19-01, [redacted]).

[50] The FERC has an exception that purchase price amounts can be used to develop cost of service if the asset is put to new use. For example, the pipeline is being converted from a natural gas pipeline to an oil pipeline. The Jet Fuel System was not put to new use after the acquisition.

[51] As I discussed above, Mr. Dyack separately determined that "that prior to 2019, PKMJF did not account for or collect abandonment liabilities and costs." Evidence of Mr. Dyack at 9-10 (Ex. C1-19-02~~1~~, PDF p 10-11).

5. Ancillary Issues Raised by VAFFC Regarding Regulation of Oil Pipeline Companies and the 2010-2018 Negotiated Settlement

62. I will address ancillary issues raised by VAFFC's witnesses below.

5.1. Common Carrier Oil Pipeline Companies are Entitled to the Opportunity to Recover Their Costs and Earn a Reasonable Return

63. Mr. Bowman included a discussion in his evidence regarding common carrier concepts and status.[52] I am not an attorney, and I will therefore not specifically respond to Mr. Bowman's legal analysis and interpretations; PKMJF will respond to the legal portions of Mr. Bowman's discussion in its evidence and in its final submissions. However, since my professional career has primarily focused on advising oil pipeline companies on cost of service and regulatory accounting and depreciation issues, I will respond to Mr. Bowman's comments to the extent they pertain to the development of PKMJF's 2019 Forecast Revenue Requirement and the underlying regulatory principles.

64. In responding to BCUC and PKMJF information requests, Mr. Bowman provided what I believe to be inconsistent opinions regarding the evaluation of PKMJF's revenue requirement as a common carrier under the jurisdiction of the BCUC. On one hand, Mr. Bowman opines that he is not aware of any BC legislation or regulations that state that PKMJF is entitled to a return on, or a return of, capital and that PKMJF therefore may be viewed as an entrepreneur where its return is not tied to the original investment in physical assets.[53] Alternatively, Mr. Bowman also opines that since PKMJF's tolls are to be set by the regulator (i.e., the BCUC), PKMJF should be provided the opportunity to recover costs and earn a fair return.[54] I will address each of these in turn.

65. If PKMJF is to be treated as an entrepreneur where its return is not tied to the original investment in physical assets, as Mr. Bowman suggests, then it would logically follow that the BCUC would not regulate the level of PKMJF's tolls. Thus, the BCUC would have no need to evaluate the cost-basis of PKMJF's tolls. As such, Mr. Bowman's theory is analogous to the ability of certain "entrepreneurial" FERC-regulated, common carrier oil pipeline companies that lack market power to set their rates based on market conditions. As the FERC explained in Order No. 572, "[u]nder the market-based approach, the oil pipeline will be able to engage in competitive pricing in order to react to changes in market conditions, such as increased demand for its service. This can result in pricing that is both efficient and just and reasonable."[55] The FERC further explained that "[t]raditional regulatory ratemaking is based on historic accounting cost. But rates based on historic cost do not function well to signal individuals how to efficiently respond to changes in market conditions. Historic cost-based rates, even if indexed for past inflation, do not perform this function well, which generally requires one price to change relative to another. Therefore, where appropriate, it is reasonable

[52] Bowman Evidence, Ex C2-36-2~~1~~, at A-4 to A-12.

[53] VAFFC Reply to PKMJF IR 4.1, dated February 22, 2021.

[54] VAFFC Reply to PKMJF IR 4.7, dated February 22, 2021.

[55] *Market-Based Ratemaking for Oil Pipelines*, Order No. 572 FERC Stats. & Regs. ¶ 31,007 (1994) at 31,180.

to permit a market pricing option."[56] While PKMJF is not advocating this approach for this proceeding, Mr. Bowman's theory suggests that, as an entrepreneurial oil pipeline company, PKMJF's tolls would be set based on market conditions, not regulatory constructs and historic costs.

66. Alternatively, if the BCUC is to set the PKMJF's tolls, providing PKMJF the opportunity to recover its costs and earn a fair return, as Mr. Bowman also suggests, I believe it is instructive to review the regulatory principles applied by other regulators of oil pipelines companies that have been deemed to be common carriers. I also note, that as I discussed above, the intervener witnesses, including VAFFC, did not propose any adjustments to PKMJF's proposed rate of return on rate base.

67. In describing common carrier obligations in MH-4-96, the NEB explained that obligations of a common carrier oil pipeline need to be tempered by a test of reasonableness. Specifically, the NEB ruled that:

> "the Board remains cognizant of the fact that statutory service obligations which are imposed by law on regulated undertakings are relative, rather than absolute, obligations. Thus, tribunals and courts have consistently ruled that the obligations of a statutory carrier in respect of both service and facilities are tempered by a test of reasonableness. An example of this adjudicative approach is found in the judgment of the Supreme Court of Canada in Patchett & Sons Ltd. v Pacific Great Eastern Railway Co. (1959), 78 C.R.T.C. 282 (S.C.C.), where the obligation of a railway company to afford reasonable facilities as part of its common carrier obligations was described in these terms:
>
> > "Individuals have placed their capital at the risk of the operations; they cannot be compelled to bankrupt themselves by doing more than what they have embraced within their public profession, reasonable service. Saving any express or special statutory obligation, that characteristic extends to the carrier's entire activity. Under that scope of duty a carrier subject to the Act is placed."[57]

68. In explaining just and reasonable tolls for another oil pipeline common carrier, TransCanada Keystone Pipeline GP Ltd., in OH-1-2007, the NEB explained that it finds tolls to be just and reasonable if they are the result of negotiations between sophisticated parties:

> "Pursuant to sections 62 and 67 of the NEB Act, tolls must be just and reasonable and not unjustly discriminatory. The Board notes that no party to the proceeding expressed concerns with respect to

[56] *Id*.

[57] NEB Reasons for Decision, PanCanadian Petroleum Limited, MH-4-96, p 11.

> Keystone's proposed toll methodology. The Board finds the proposed Committed Toll methodology would produce tolls that are just and reasonable given that they are the result of negotiations between sophisticated parties."[58]

69. Like the NEB/CER, the FERC also has a reasonableness standard when assessing tariff rates. Interstate oil pipelines in the United States have been considered common carriers since 1906 in accordance with the Interstate Commerce Act. Section 1(5) of the Interstate Commerce Act requires that all oil pipeline rates be just and reasonable.[59] The FERC has explained that "just and reasonable rates are rates yielding sufficient revenue to cover all proper costs, including federal income taxes, plus a specified return on invested capital."[60]

70. To the extent that Mr. Bowman is suggesting that PKMJF is not entitled to the opportunity to recover its cost of operation for the pipeline as well as the depreciation of plant in service and other required costs over the expected remaining life of the pipeline, that would be inconsistent with my understanding (and that of other oil pipeline regulators) of the regulatory principles and precedent underlying just and reasonable tolls for oil pipeline companies.

5.2. The 2010-2018 Settlement Was an Arm's Length Negotiation Between Sophisticated Parties

5.2.1. Summary

71. As Mr. Bowman acknowledged in his evidence, "[d]uring 2009, PKMJF met with shippers 'to set fixed annual revenue amounts for use of the pipeline that span the tolling periods commencing 2009 through to the end of 2018.' The discussions resulted in a negotiated settlement that provides little detail on the calculation of revenue requirement amounts."[61] Mr. Bowman also acknowledged that the detail that was provided as part of the negotiated settlement included a depreciation study based on a 13-year remaining life as of December 31, 2010.

5.2.2. The Negotiated Settlement Was a Package Deal That Should Not Be Adjusted to Relieve One Party of What They Now Allege Was an Improvident Bargain

72. While I was not involved in the negotiations that led to the 2010-2018 negotiated settlement, the 2010-2018 negotiated settlement was a package deal that presumably consisted of

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[58] NEB Reasons for Decision, TransCanada Keystone GP Ltd., OH-1-2007, p 19.

[59] 49 U.S.C. app. § 1(5)(a) (1988).

[60] *United Airlines, Inc. v. FERC*, 827 F.3d 122, 128 (D.C. Cir. 2016) (quoting *ExxonMobil Oil Corp. v. FERC*, 487 F.3d 945, 951 (D.C. Cir. 2007)). *See also Farmers Union Cent. Exch., Inc. v. FERC*, 734 F.2d 1486, 1502 (D.C. Cir. 1984) (Exh. No. CPC-00445 at 10) ("*Farmers Union II*") (citing *FERC v. Pennzoil Producing Co.*, 439 U.S. 508, 517 (1979) and *In re Permian Basin Area Rate Cases*, 390 U.S. 747, 797 (1968)).

[61] Bowman Evidence, Ex C2-36-~~1~~2, at A-16 to A-17.

compromises by all parties. In responding to a BCUC information request, [redacted][62] Each party may have also had differing views of the risks.

73. Given that negotiated settlements are package deals that consist of compromises by all parties, with differing views of risk, oil pipeline regulators have a policy of honoring the settlement terms. For example, the NEB has determined that tolls resulting from negotiations between sophisticated parties are considered to be just and reasonable.[63] The FERC has explained that it "honors the contract terms entered into by sophisticated parties that engage in an arms-length negotiation"[64] and "it would be improper to second guess the business and economic decisions made between sophisticated businesses when entering negotiated rate contracts."[65] The FERC provides further guidance that "when reviewing the justness and reasonableness of a contract rate, it is not primarily to relieve one party or another of what they deem an improvident bargain, especially in negotiations involving sophisticated business entities."[66]

5.2.3. While Only One Component of the Negotiated Settlement, All Parties Shared Volume Risks

74. Mr. Bowman opined that the shippers bore all volume risk (positive and negative) because the negotiated settlement included agreed to annual revenues, and he alternatively appears to opine that volume risk would have been transferred to the pipeline owner's account if an agreed to toll was instead used.[67] While agreed-to revenues are only one component of the overall negotiated settlement, I disagree with Mr. Bowman's view that this component transferred all volume risk to the shippers. As shown in Figure 1, since volumes increased substantially from 2010 to 2018, the implied toll the shippers paid in 2018 was 14% lower than the implied toll they paid in 2010. Thus, had the parties instead agreed to a fixed per m^3 toll for 2010 ($6.81 based on the 2010 data below), and increased that toll up to 2018 annually by 2.5% (or not), PKMJF would have earned substantially more revenue than it actually earned for 2010 to 2018. This illustrates that the shippers in total had complete price certainty for the entire 2010-2018 settlement period, regardless of cost or volume variances, which, in my view, minimized their risks and provided them with value. Clearly, the shippers did not bear all volume risk.

[62] VAFFC Reply to BCUC Confidential IR [redacted], dated February 22, 2021.

[63] NEB Reasons for Decision, TransCanada Keystone GP Ltd., OH-1-2007, p 19.

[64] *Tesoro High Plains Pipeline Co.* LLC, 148 FERC ¶ 61,129, at P 23 (2014).

[65] *Seaway*, 146 FERC ¶ 61,151 at P 25 (2014).

[66] *Seaway*, 146 FERC ¶ 61,151 at P 28 (2014).

[67] Bowman Evidence, Ex C2-36-2~~1~~, at A-4 to A-12.

Figure 1
Application of Oil Pipeline Cost Index to 2010 Negotiated Settlement Revenues

Line No.	Description	2010	2018
1	Negotiated Settlement Revenues [1/]	$5,694,000	$6,937,586
2	Actual Annual Throughput (m^3)	835,633	1,182,134
3	Implied Toll ($/$m^3$)	$6.81	$5.87
4	Change in Implied Toll		-14%

1/ Reflects negotiated annual revenues approved in Order Number P-05-09.
2/ Per Ex. B-13 at pdf p 34.

5.2.4. To Assume Prior Collection Violates the Retroactive Ratemaking Doctrine

75. As I explained above, it is my understanding that Mr. Bowman's claim that PKMJF has already collected a portion of its abandonment costs violates the retroactive ratemaking doctrine, which prohibits a regulator from adjusting current rates to compensate for previous over- or under-recovery of costs in prior periods.

5.2.5. Annual Toll Increase per the Settlement Were Less Than Expected for the Oil Pipeline Industry

76. Mr. Bowman[68] and Ms. Davies[69] discuss that under the terms of the negotiated settlement, PKMJF's 2.5% annual revenue increase from 2011 to 2018 exceeded the level of inflation generally for BC over the period. To the extent a comparison to historic cost of service or negotiated revenues is even relevant when evaluating PKMJF's 2019 Forecast Revenue Requirement, in my view, the most appropriate index to use for this comparison is the FERC's oil pipeline cost index since it was specifically designed for oil pipeline companies.

77. The Energy Policy Act of 1992 ("EPAct 1992) required the FERC to establish a simplified and generally applicable ratemaking methodology[70] that also was consistent with the just and reasonable standard of review of the Interstate Commerce Act[71] ("ICA"). To implement EPAct 1992's mandate, the FERC issued Order No. 561[72] establishing a cost indexing methodology that allows oil pipelines to change their rates annually as opposed to making annual cost-of-service filings. In Order No. 561, the FERC committed to review the index level every five years to ensure that it adequately reflects changes to oil pipeline industry

[68] Bowman Evidence, Ex C2-36-~~1~~2, at A-31.

[69] Davies Evidence, Ex C2-36-2~~1~~, at B-3.

[70] Pub. L. No. 102-486, 106 Stat. 3010, § 1801(a) (Oct. 24, 1992). EPAct 1992 required the FERC to establish a simplified and generally applicable method of regulating oil pipeline transportation rates.
[71] 49 U.S.C. app. 1 (1988).

[72] See Revisions to Oil Pipeline Regulations Pursuant to the Energy Policy Act of 1992, Order No. 561, FERC Stats. & Regs. ¶ 30,985 (1993), order on reh'g, Order No. 561-A, FERC Stats. & Regs. ¶ 31,000 (1994), aff'd, Assoc. of Oil Pipelines v. FERC, 83 F.3d 1424 (D.C. Cir. 1996).

costs,[73] and the FERC has conducted such reviews every five years starting in 2000. Given that oil pipelines are unique, the FERC specifically analyzes per barrel-mile cost data for North American oil pipeline companies as reported in their FERC Form No. 6 Annual Reports[74] to establish its index, as opposed to general inflationary cost data.

78. In Figure 2, I calculate the 2019 revenues for PKMJF assuming its 2010 negotiated revenues were indexed forward based on that year's oil pipeline inflationary cost changes as determined by the FERC. As shown on Line 10, PKMJF's 2019 revenues would be $7.67 million if adjusted for annual oil pipeline inflationary cost changes, or $0.52 million more than PKMJF's 2019 Forecast Revenue Requirement. Thus, as shown on Line PKMJF's 2019 Forecast Revenue Requirement is 6.7% lower than would be expected when compared to oil pipeline inflationary cost changes.

[73] Order No. 561, FERC Stats. & Regs. ¶ 30,985 at 30,941.

[74] The cost data reported in FERC Form No. 6 Annual Reports and used by the FERC to analyze per-barrel mile cost data to establish its index for oil pipelines includes cost data from various oil pipelines that have both Canadian and US operations, such as Enbridge Energy Limited Partnership, Pembina Cochin LLC, and TransCanada Keystone Pipeline, L.P.

Figure 2
Application of Oil Pipeline Cost Index to 2010 Negotiated Settlement Revenues

Line No.	Year	Negotiated Settlement Annual Revenues	Oil Pipeline Cost Index (PPI year)	Annual Revenues Assuming Oil Pipeline Cost Index
		1/	2/	3/
1	2010	$5,694,000		
2	2011	*$5,836,350*	1.086011	$6,183,747
3	2012	*$5,982,259*	1.045923	$6,467,723
4	2013	*$6,131,815*	1.038858	$6,719,046
5	2014	*$6,285,111*	1.045829	$7,026,973
6	2015	*$6,442,238*	0.979865	$6,885,485
7	2016	*$6,603,294*	1.001985	$6,899,152
8	2017	*$6,768,377*	1.044087	$7,203,315
9	2018	*$6,937,586*	1.043108	$7,513,836
10	2019		1.020139	$7,665,157
11	Revenue Requirement (2019 Forecast)			$7,150,000
12	Variance From 2019 Forecast Assuming Index ($)			($515,157)
13	Variance From 2019 Forecast Assuming Index (%)			-6.7%

1/ Reflects negotiated annual revenues for 2010-2018 approved in Order Number P-05-09.
2/ Reflects application of FERC's indexing methodology that allows oil pipelines to change their tariff rates as opposed to making cost-of-service filings. The index level is reviewed every 5 years by the FERC to ensure that it adequately reflects changes to oil pipeline industry costs. 153 FERC ¶ 61,312, Five-Year Review of the Oil Pipeline Index (2015). Each year's index reflects that years inflationary cost change (e.g., 2011 Index is based on 2011 producer price index as adjusted for unique changes in oil pipeline
3/ Reflects 2010 prior year annual revenue adjusted annually by the oil pipeline index (as opposed to the negotiated 2.5% annual increase).

5.3. It is Reasonable and Appropriate to Base PKMJF's Depreciable Rates on its Remaining Economic Life

79. Mr. Bowman opined that since PKMJF is a common carrier, it is his view that PKMJF "has no entitlement to the near certainty it seeks for recovery [of] its remaining capital asset net book value, nor its full abandonment" costs, and therefore its depreciable life should be based only on its physical life.[75] I disagree with Mr. Bowman's opinion that PKMJF's depreciable life should be based solely on its physical life, for several reasons.

80. First, as I discuss in more detail above, Mr. Bowman's suggestion that PKMJF should not be entitled to the opportunity to recover some of its costs since it is a common carrier is inconsistent with the regulatory principles underlying the development of tolls for oil pipeline

[75] Bowman Evidence, Ex C2-36-2~~1~~, at A-32 to 33.

companies that I have seen implemented in my professional career. I will not repeat this discussion here.

81. Second, Mr. Bowman's view contradicts the regulatory principles underlying the development of depreciation rates for oil pipeline companies. There are two main issues that may impact the development of depreciation rates: the expected economic life of the regulated entity and the expected physical life of the asset. At times, one or both of these factors is relatively easy to estimate and dominates the calculation (which is the case for PKMJF since its economic life is substantially less that its physical life). Physical life represents the period of time until an asset becomes physically obsolete, regardless of whether it will still be used. Economic life represents the amount of time an asset is expected to continue before it experiences economic obsolescence. Economic obsolescence is the loss in value resulting from external economic factors, such as a competing pipeline being placed in service, or in the case of a crude oil pipeline, when an oil field is expected to be depleted. In the case of the crude oil pipeline, once the field is depleted, the pipeline would have little if any economic value even if the vast majority of the property could remain physically useful for decades. Given that oil pipelines may have long physical lives, oil pipeline depreciation rates are typically based on economic lives.[76] This is because if the depreciation rates assume too long of a depreciable life, the oil pipeline will be deprived of an opportunity to recover its prudently incurred investment.

82. In responding to a PKMJF information request, Parkland agreed that assuming an economic life that is longer than the period of time the JFL can operate economically "is inconsistent with the definition of economic life"[77] and that "Parkland believes that it is not appropriate to require the JFL to continue operating if it can no longer generate positive cash flows."[78]

83. Third, oil pipeline regulators have long recognized the risk to the pipeline of applying physical lives for developing depreciation rates for long-lived assets, and as such, I am not aware of any depreciation studies approved by an oil pipeline regulator that have relied solely on physical lives (or that have ignored economic lives). For example, in the Alliance depreciation study approved by the NEB that I attached as Attachment EGW-3, it explains that the "service life of the Alliance Pipeline Limited Partnership assets is restricted not only by physical forces of retirement such as wear and tear and deterioration, but also, and more significantly, by economic forces of retirement. Generally, physical forces of retirement are less likely to occur than retirement of large portions of the pipeline system due to economic forces." The FERC similarly relies upon economic lives to support depreciation rates for oil pipeline companies. For example, in a litigated tariff rate proceeding involving the Trans Alaska Pipeline System, the oil pipeline's depreciation rates were based on a remaining economic life directly aligned with the term of pipeline's right-of-way agreements.[79] Similarly, in FERC Docket No. DO00-

[76] The exception is for short-lived assets, such as vehicles, as the physical life of short-lived assets can be less than the economic life of the oil pipeline.

[77] Parkland Reply to PKMJF IR 3.1, provided February 22, 2021.

[78] Parkland Reply to PKMJF IR 3.3, provided February 22, 2021.

[79] *BP Pipelines (Alaska) Inc.*, Opinion No. 502, 123 FERC ¶ 61,287 at 126.

5, the FERC approved depreciation rates for Point Arguello Pipeline Company based on a 4-year remaining economic life because the crude oil field that supported the oil pipeline would be depleted in 4 years. In its depreciation order in Docket No. DO00-5, the FERC explained that it granted a change in depreciation rates (based on a 4-year remaining life) because that would allow the oil pipeline to recoup its investment within its remaining life.

6. Updated 2019-2023 Revenue Requirement

84. PKMJF requested that I update its revenue requirement calculations as submitted in its Application as follows:

- Assume a 4.25-year depreciable life and, similarly, a 4.25-year collection period for PKMJF's abandonment cost collection mechanism
- Calculate annual revenue requirement amounts for the years 2019 through 2022, and for the partial-year period January 1, 2023 through March 31, 2023
- Include actual operating expenses for 2019 and 2020, and forecast operating expenses for the remaining years

85. PKMJF explains the reasoning for these changes in its evidence. The updated revenue requirement analysis is also included as evidence by PKMJF.

Attachment 1

ERIK G. WETMORE — Principal

Mr. Wetmore is a Principal with Turner Wetmore Collins, LLC, a firm that provides consulting services to the regulated sector of the energy transportation industry. Mr. Wetmore has more than thirty years of professional experience, primarily in advising regulated energy transportation companies on ratemaking, regulatory policy, accounting, and business strategy issues. Mr. Wetmore regularly provides testimony before various federal and state regulatory commissions and courts.

Before co-founding Turner Wetmore Collins, LLC in 2003, Mr. Wetmore worked in Ernst & Young's Oil Pipeline Consulting Group and Arthur D. Little's Corporate Finance & Strategy Practice. Mr. Wetmore received an M.B.A. in Finance and Economics from the University of Chicago Booth School of Business and a B.A. in Mathematics and Economics from the University of California at Santa Barbara. Mr. Wetmore also earned a Certified Public Accountant license in California.

REPRESENTATIVE EXPERIENCE:

Ratemaking

- Provided expert testimony regarding ratemaking, accounting, and regulatory policy issues before the Alaska Department of Revenue, the British Columbia Utilities Commission ("BCUC"), the California Public Utilities Commission ("CPUC"), the Federal Energy Regulatory Commission ("FERC"), the Regulatory Commission of Alaska ("RCA"), and the Superior Court of the State of California.

- Developed ratemaking support for compliance filings that implemented various regulatory commissions' opinions and decisions.

- Participated as a ratemaking advisor in various regulatory commissions' rate proceeding settlement negotiations.

- Developed ratemaking support for tariff rate applications at the FERC and other state regulatory commissions.

- Developed multiple cost of service analytical models, including trended original cost rate base and depreciated original cost rate base models.

- Assisted multiple oil pipeline carriers to develop the "Annual Cost of Service Based Analysis Schedule" for their respective FERC Form No. 6's.

Accounting

- Provided regulatory accounting assistance to multiple oil pipeline carriers as they developed their FERC Form No. 6's.

- Conducted oil pipeline regulatory accounting workshops for the FERC's accounting staff as well as for a number of oil pipeline carriers.

- Directed development of FERC Form No. 6 training course for the Association of Oil Pipelines. Included developing a comprehensive FERC Form No. 6 Training Model that highlighted the interdependence of supporting schedules and financial statements within the FERC Form No. 6.

- Developed depreciation studies approved by the FERC.

- Authored a report that compared and contrasted the Uniform System of Accounts for Interstate Oil Pipelines with Generally Accepted Accounting Principles for the Association of Oil Pipelines.

- Planned and performed audits of financial statements for multiple clients.

- Taught undergraduate accounting courses at the University of California at Santa Barbara.

Corporate Finance & Business Strategy

- Performed and assisted with due diligence investigations for multiple clients related to asset sales and acquisitions.

- Directed project that evaluated the strategic and regulatory implications of electric utilities evolving into various structures and pursuing different business strategies. Project addressed key challenges facing regulators over the foreseeable future. Presented findings to the CPUC.

- Managed a series of projects focused on renewable energy and energy research, development and demonstration (RD&D) programs for the California Energy Commission.

- Managed project for the Electric Power Research Institute and over twenty-five participating electric utilities that evaluated how technologies need to develop to achieve select business visions. Results used to assist in development of R&D budgets for participating utilities.

- Led project that assessed financial opportunity for a utility to expand into telecommunications market. Key activities included evaluating multiple strategic and technical options, assessing regulatory requirements, and performing detailed financial analysis. Utility entered into joint venture with partner identified during project.

TESTIMONY:

January 2021	Submitted declaration before the CPUC on behalf of SFPP, L.P., Application 21-01-015.
October 2020	Presented oral testimony before the FERC on behalf of Colonial Pipeline Company, Docket No. OR18-7-002 *et al*.
July 2020	Submitted affidavit before the FERC on behalf of SFPP, L.P., Docket Nos. OR14-35 and OR14-36.
May 2020	Submitted prepared surrebuttal testimony before the FERC on behalf of Colonial Pipeline Company, Docket No. OR18-7-002 *et al*.
February 2020	Submitted prepared answering testimony before the FERC on behalf of Colonial Pipeline Company, Docket No. OR18-7-002 *et al*.
November 2019	Submitted prepared answering testimony before the FERC on behalf of Colonial Pipeline Company, Docket No. OR18-7-002 *et al*.
August 2019	Submitted expert report before the BCUC on behalf of Kinder Morgan Canada (Jet Fuel) Inc., Project No. 1598984.
June 2019	Submitted expert report before the BCUC on behalf of Kinder Morgan Canada (Jet Fuel) Inc., Project No. 1598984.
May 2019	Submitted affidavit before the FERC on behalf of SFPP, L.P., Docket Nos. IS08-390-004, -006, -007.
February 2019	Presented oral deposition testimony before the Alaska Department of Revenue on behalf of ConocoPhillips Company, OAH 16-0582 and OAH 17-0722.
September 2018	Submitted expert report before the Alaska Department of Revenue on behalf of ConocoPhillips Company, OAH 16-0582 and OAH 17-0722.
July 2018	Submitted prepared direct testimony before the RCA on behalf of PTE Pipeline LLC, Docket No. P-18-018.

July 2018	Submitted prepared direct testimony before the RCA on behalf of Oliktok Pipeline Company, TL46-334.
May 2018	Submitted affidavit before the FERC on behalf of SFPP, L.P., Docket Nos. IS08-390-004, -006, -007.
May 2018	Submitted affidavit before the FERC on behalf of SFPP, L.P., Docket Nos. IS09-437-000 and IS10-572-000.
September 2017	Submitted affidavit before the FERC on behalf of SFPP, L.P., Docket No. OR16-6-000.
February 2017	Presented oral testimony before the FERC on behalf of SFPP, L.P., Docket No. OR16-6-000.
October 2016	Submitted prepared answering testimony before the FERC on behalf of SFPP, L.P., Docket No. OR16-6-000.
August 2016	Submitted prepared answering testimony before the FERC on behalf of SFPP, L.P., Docket No. OR16-6-000.
April 2016	Submitted affidavit before the RCA on behalf of ConocoPhillips Transportation Alaska, Inc., Docket Nos. P-08-009, P-09-010, and P-10-010.
April 2016	Submitted affidavit before the RCA on behalf of ExxonMobil Pipeline Company, Docket Nos. P-08-013, P-09-015, and P-11-005.
April 2016	Submitted affidavit before the RCA on behalf of Koch Alaska Pipeline Company, LLC, Docket Nos. P-09-005, P-09-012, and P-10-013.
April 2016	Submitted affidavit before the RCA on behalf of Unocal Pipeline Company, Docket Nos. P-09-006, P-10-005, and P-11-009.
March 2016	Submitted affidavit before the FERC on behalf of Seaway Crude Pipeline Company LLC, Docket No. IS12-226-000.
February 2016	Submitted supplemental affidavit before the FERC on behalf of the Trans Alaska Pipeline System Carriers, Docket No. IS09-348-004, *et al*.

January 2016	Submitted affidavit before the FERC on behalf of the Trans Alaska Pipeline System Carriers, Docket No. IS09-348-004, *et al*.
September 2015	Submitted prepared direct testimony before the RCA on behalf of Point Thomson Export Pipeline, Docket No. P-12-015.
April 2015	Submitted verified statement before the FERC on behalf of SFPP, L.P., Docket Nos. IS08-390-004, -006, -007.
April 2015	Submitted verified statement before the FERC on behalf of SFPP, L.P., Docket Nos. IS09-437-000 and IS10-572-000.
March 2015	Presented oral testimony before the FERC on behalf of Buckeye Pipe Line Company, L.P., Docket No. OR12-28-001.
March 2015	Submitted prepared direct testimony before the RCA on behalf of Oliktok Pipeline Company, Docket No. P-15-006.
December 2014	Submitted prepared answering testimony before the FERC on behalf of Buckeye Pipe Line Company, L.P., Docket No. OR12-28-001.
October 2014	Presented oral deposition testimony before the Superior Court of the State of California for the County of Los Angeles on behalf of Phillips 66 Company, Case No. BC518730.
October 2014	Submitted prepared answering testimony before the FERC on behalf of Buckeye Pipe Line Company, L.P., Docket No. OR12-28-001.
September 2014	Submitted affidavit before the FERC on behalf of SFPP, L.P., Docket Nos. OR14-35 and OR14-36.
August 2014	Submitted prepared direct testimony before the RCA on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. P-14-024.
July 2014	Submitted prepared direct testimony before the RCA on behalf of ExxonMobil Pipeline Company, Docket No. P-14-023.
July 2014	Submitted affidavit before the FERC on behalf of SFPP, L.P., Docket Nos. OR14-35 and OR14-36.

November 2013	Submitted prepared direct testimony before the RCA on behalf of Oliktok Pipeline Company, Docket No. P-13-013.
July 2013	Submitted declaration before the CPUC on behalf of Calnev Pipe Line LLC, Application 13-07-013.
July 2013	Submitted prepared direct testimony before the RCA on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. P-13-010.
May 2013	Presented oral testimony before the CPUC on behalf of SFPP, L.P., Application No. 12-01-015.
April 2013	Submitted prepared direct testimony before the RCA on behalf of ExxonMobil Pipeline Company, Docket No. P-13-009.
April 2013	Submitted prepared rebuttal testimony before the CPUC on behalf of SFPP, L.P., Application No. 12-01-015.
March 2013	Presented oral testimony before the FERC on behalf of Seaway Crude Pipeline Company LLC, Docket No. IS12-226-000.
February 2013	Submitted prepared supplemental reply testimony before the CPUC on behalf of SFPP, L.P., Application No. 12-01-015.
February 2013	Submitted prepared rebuttal testimony before the FERC on behalf of Seaway Crude Pipeline Company LLC, Docket No. IS12-226-000.
February 2013	Submitted prepared reply testimony before the CPUC on behalf of SFPP, L.P., Application No. 12-01-015.
January 2013	Submitted prepared direct testimony before the RCA on behalf of ExxonMobil Pipeline Company, Docket No. P-12-016.
December 2012	Submitted prepared direct testimony before the RCA on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. P-12-017.
November 2012	Submitted affidavit before the FERC on behalf of SFPP, L.P., Docket Nos. IS09-437-000 and IS10-572-000.
November 2012	Submitted prepared direct testimony before the CPUC on behalf of SFPP, L.P., Application No. 12-01-015.

August 2012	Submitted prepared direct testimony before the FERC on behalf of Seaway Crude Pipeline Company LLC, Docket No. IS12-226-000.
July 2012	Submitted prepared direct testimony before the RCA on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. P-12-017.
June 2012	Submitted prepared direct testimony before the RCA on behalf of ExxonMobil Pipeline Company, Docket No. P-12-016.
June 2012	Submitted affidavit before the FERC on behalf of SFPP, L.P., Docket No. IS12-388-000.
December 2011	Submitted declaration before the CPUC on behalf of Calnev Pipe Line LLC, Application 08-06-0090.
December 2011	Submitted prepared direct testimony before the RCA on behalf of Unocal Pipeline Company, Docket No. P-11-022.
August 2011	Submitted prepared reply testimony before the RCA on behalf of the Indicated Trans Alaska Pipeline System Carriers, Docket No. P-08-9, *et al.*
June 2011	Submitted prefiled direct testimony before the RCA on behalf of Koch Alaska Pipeline Company, LLC, Docket No. P-11-12.
May 2011	Submitted prepared direct testimony before the RCA on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. P-11-11.
February 2011	Submitted prepared direct testimony before the RCA on behalf of Unocal Pipeline Company, Docket No. P-11-9.
December 2010	Submitted prepared direct testimony before the RCA on behalf of ExxonMobil Pipeline Company, Docket No. P-11-6.
November 2010	Presented oral testimony before the FERC on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. IS09-348.
October 2010	Submitted prepared reply testimony before the FERC on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No IS09-348.

August 2010	Submitted prefiled direct testimony before the RCA on behalf of Koch Alaska Pipeline Company, LLC, Docket No. P-10-13.
July 2010	Submitted prepared direct testimony before the RCA on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. P-10-10.
June 2010	Submitted prepared answering testimony before the FERC on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. IS09-348.
April 2010	Submitted prepared direct testimony before the FERC on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. IS09-348.
December 2009	Submitted prepared direct testimony before the RCA on behalf of Unocal Pipeline Company, Docket No. P-10-5.
November 2009	Submitted prepared direct testimony before the RCA on behalf of ExxonMobil Pipeline Company, Docket No. P-09-15.
September 2009	Submitted prepared direct testimony before the CPUC on behalf of Calnev Pipe Line LLC, Application No. 08-06-009.
August 2009	Submitted prefiled direct testimony before the RCA on behalf of Koch Alaska Pipeline Company, LLC, Docket No. P-09-12.
July 2009	Submitted prepared direct testimony before the RCA on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. P-09-10.
December 2008	Submitted prepared direct testimony before the RCA on behalf of Unocal Pipeline Company, Docket No. P-09-6.
December 2008	Submitted affidavit before the RCA on behalf of Unocal Pipeline Company, Docket No. P-09-6.
December 2008	Submitted prefiled direct testimony before the RCA on behalf of Koch Alaska Pipeline Company, LLC, Docket No. P-09-5.
December 2008	Submitted affidavit before the RCA on behalf of Koch Alaska Pipeline Company, LLC, Docket No. P-09-5.

November 2008	Submitted prepared direct testimony before the RCA on behalf of ExxonMobil Pipeline Company, Docket No. P-08-13.
November 2008	Submitted affidavit before the RCA on behalf of ExxonMobil Pipeline Company, Docket No. P-08-13.
October 2008	Submitted prepared direct testimony before the RCA on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. P-08-9.
October 2008	Submitted affidavit before the RCA on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. P-08-9.
February 2008	Submitted affidavit before the FERC on behalf of White Cliffs Pipeline, L.L.C., Docket No. OR08-8-000.
June 2007	Submitted prepared direct testimony before the FERC on behalf of Calnev Pipe Line LLC, Docket No. IS06-296-002.
November 2006	Presented oral testimony before the FERC on behalf of ConocoPhillips Transportation Alaska, Inc., Docket Nos. IS05-80-002 and IS06-63-000.
November 2006	Presented oral testimony before the FERC on behalf of ExxonMobil Pipeline Company, Docket Nos. IS05-72-002 and IS06-71-000.
November 2006	Presented oral testimony before the FERC on behalf of Koch Alaska Pipeline Company, LLC, Docket Nos. IS05-96-002 and IS06-66-000.
November 2006	Presented oral testimony before the FERC on behalf of Unocal Pipeline Company, Docket Nos. IS05-107-001 and IS06-82-000.
June 2006	Submitted affidavit before the FERC on behalf of Rocky Mountain Pipeline System LLC, Docket Nos. IS06-342-000 and IS06-343-000.
May 2006	Submitted prepared answering testimony before the FERC on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. IS05-80-002 and IS06-63-000.

April 2006	Submitted prepared supplemental direct testimony before the FERC on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. IS06-63-000.
April 2006	Submitted prepared supplemental direct testimony before the FERC on behalf of ExxonMobil Pipeline Company, Docket No. IS06-71-000.
April 2006	Submitted prepared supplemental direct testimony before the FERC on behalf of Koch Alaska Pipeline Company, LLC, Docket No. IS06-66-000.
April 2006	Submitted prepared supplemental direct testimony before the FERC on behalf of Unocal Pipeline Company, Docket No. IS06-82-000.
December 2005	Submitted prepared direct testimony before the FERC on behalf of ConocoPhillips Transportation Alaska, Inc., Docket No. IS05-80-002.
December 2005	Submitted prepared direct testimony before the FERC on behalf of ExxonMobil Pipeline Company, Docket No. IS05-72-002.
December 2005	Submitted prepared direct testimony before the FERC on behalf of Koch Alaska Pipeline Company, LLC, Docket No. IS05-96-002.
December 2005	Submitted prepared direct testimony before the FERC on behalf of Unocal Pipeline Company, Docket No. IS05-107-001.

REPRESENTATIVE PUBLICATIONS AND PRESENTATIONS:

"Financial Statements," Association of Oil Pipelines, FERC Form No. 6 Training, Virtual (February 2021)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Virtual (February 2021)

"Page 700 Workshop," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2020)

"Financial Statements," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2020)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Houston, Texas (February 2020)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, San Antonio, Texas (September 2019)

"Form 6 201 Advanced Session," Association of Oil Pipelines, Annual Business Conference, San Antonio, Texas (September 2019)

"Page 700 Workshop," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2019)

"Financial Statements," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2019)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Houston, Texas (February 2019)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, Denver, Colorado (September 2018)

"Form 6 201 Advanced Session," Association of Oil Pipelines, Annual Business Conference, Denver, Colorado (September 2018)

"Page 700 Workshop," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2018)

"Financial Statements," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2018)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Houston, Texas (February 2018)

"Form 6 101 Introductory Session," Association of Oil Pipelines, Annual Business Conference, Seattle, Washington (September 2017)

"Form 6 201 Advanced Session," Association of Oil Pipelines, Annual Business Conference, Seattle, Washington (September 2017)

"Cost of Service Concepts," Association of Oil Pipelines, Annual Business Conference, Chicago, Illinois (September 2016)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, Chicago, Illinois (September 2016)

"Page 700 Workshop," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2016)

"Financial Statements," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2016)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Houston, Texas (February 2016)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, Atlanta, Georgia (September 2015)

"Cost of Service Concepts," Association of Oil Pipelines, Annual Business Conference, Atlanta, Georgia (September 2015)

"Overhead Allocations," Association of Oil Pipelines, Annual Business Conference, Atlanta, Georgia (September 2015)

"Cost of Service Concepts," Association of Oil Pipelines, Annual Business Conference, Coeur d'Alene, Idaho (September 2014)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, Coeur d'Alene, Idaho (September 2014)

"Cost of Service Concepts," Association of Oil Pipelines, Annual Business Conference, Newport Beach, California (September 2013)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, Newport Beach, California (September 2013)

"FERC Hearings and Settlements," Association of Oil Pipelines, Annual Business Conference, Newport Beach, California (September 2013)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, Savannah, Georgia (September 2012)

"Cost of Service Concepts," Association of Oil Pipelines, Annual Business Conference, Savannah, Georgia (September 2012)

"Page 700 Workshop," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2012)

"Financial Statements and Supporting Schedules Important for Page 700," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2012)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Houston, Texas (February 2012)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, Denver Colorado (September 2011)

"Form 6 201," Association of Oil Pipelines, Annual Business Conference, Denver, Colorado (September 2011)

"Cost of Service Concepts," Association of Oil Pipelines, Annual Business Conference, Denver, Colorado (September 2011)

"Page 700 Workshop," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2011)

"Financial Statements and Supporting Schedules Important for Page 700," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2011)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Houston, Texas (February 2011)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, Atlanta, Georgia (September 2010)

"Form 6 201," Association of Oil Pipelines, Annual Business Conference, Atlanta, Georgia (September 2010)

"Cost of Service Concepts," Association of Oil Pipelines, Annual Business Conference, Atlanta, Georgia (September 2010)

"Page 700 Workshop," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (January 2010)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Houston, Texas (January 2010)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, San Diego, California (September 2009)

"Form 6 201," Association of Oil Pipelines, Annual Business Conference, San Diego, California (September 2009)

"Cost of Service Concepts," Association of Oil Pipelines, Annual Business Conference, San Diego, California (September 2009)

"Page 700 Workshop," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2009)

"Financial Statements and Supporting Schedules Important for Page 700," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2009)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Houston, Texas (February 2009)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference (September 2008)

"Repositioning the FERC Form 6," Association of Oil Pipelines, Annual Business Conference, Austin, Texas (September 2008)

"Page 700 Workshop," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2008)

"Financial Statements and Supporting Schedules Important for Page 700," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2008)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Houston, Texas (February 2008)

"Understanding and Applying FERC Accounting Standards," Association of Oil Pipelines, Annual Business Conference, Los Angeles, California (September 2007)

"Strategic Uses of the Form 6," Association of Oil Pipelines, Annual Business Conference, Los Angeles, California (September 2007)

"Financial Statements and Supporting Schedules Important for Page 700," Association of Oil Pipelines, FERC Form No. 6 Training, Houston, Texas (February 2007)

"General Information Statements and Notes to Financial Statements," Association of Oil Pipelines, FERC Form 6 No. Training, Houston, Texas (February 2007)

"Dissecting the FERC Form No. 6," Association of Oil Pipelines, Annual Business Conference, Minneapolis, Minnesota (May 2006)

"Acquisition Due Diligence," Association of Oil Pipelines, Annual Business Conference, Minneapolis, Minnesota (May 2006)

Key Differences Between the Uniform System of Accounts and Generally Accepted Accounting Principles, developed for Association of Oil Pipelines (September 2005)

"Dissecting the FERC Form No. 6," Association of Oil Pipelines, Annual Business Conference, New Orleans, Louisiana (May 2005)

"Workpaper Documentation to Support Tariff Filings," Association of Oil Pipelines, Annual Business Conference, Baltimore, Maryland (May 2003)

"The Role of Distributed Generation in the New Electric Distribution Business," California Public Utilities Commission, San Francisco, California (February 1999)

Distribution System Redesign (with several authors), developed for Electric Power Research Institute, EPRI TR-111683, Palo Alto, California (December 1998)

"The New Electric Distribution Company: Six Future Visions," California Public Utilities Commission, San Francisco, California (November 1998)

EMPLOYMENT HISTORY:

Principal	Turner Wetmore Collins, LLC Danville, California	2003 - Present
Director	Portal Software Cupertino, California	1999 - 2003
Manager	Arthur D. Little San Francisco, California	1997 - 1999
Manager	Ernst & Young, LLP Oil Pipeline Consulting Group San Francisco, California	1992 - 1995
Sr. Auditor	Ernst & Young, LLP San Francisco, California	1990 - 1992

EDUCATION & CERTIFICATION:

University of Chicago Booth School of Business M.B.A., Concentrations in Finance and Economics	1997
Certified Public Accountant (CPA), California *(Currently on inactive status)*	1993
University of California, Santa Barbara B.A., Mathematics and Economics	1990

Attachment 2

Alliance Pipeline Ltd.
800, 605 – 5 Avenue SW
Calgary, AB, Canada
T2P 3H5

Telephone (403) 266-4464
Toll-free 1-800-717-9017
Fax (403) 266-4495

E-Filed / Signed Original Via Messenger

March 4, 2016

Ms. Sheri Young
Secretary of the Board
National Energy Board
517 10th Avenue SW
Calgary, Alberta
T2R 0A8

Re: RH-002-2014
Alliance Pipeline Ltd. as General Partner of the Alliance Pipeline Limited Partnership
Application Pursuant to Part IV of the *National Energy Board Act* for Approval of New Services and related Tolls and Tariffs for Services on the Alliance Pipeline
NEB File Number: OF-Tolls-Group1-A159-2014 01
Depreciation Study Filing and Reserve Account Termination

Dear Ms. Young

In accordance with Condition 14 of National Energy Board Order TG-012-2015 issued on June 24, 2015 in conjunction with the Board's RH-002-2014 Reasons for Decision, and Board directives contained within that Decision,[1] Alliance Pipeline Ltd., as General Partner of the Alliance Pipeline Limited Partnership, (Alliance) hereby submits for approval a depreciation study, and concurrently requests that its associated reserve account be terminated.

On October 7, 2015, Alliance submitted a report to the Board that established a schedule of baseline distributions in compliance with Condition 13 of Board Order TG-012-2015. Alliance also advised the Board that to the extent that Alliance's pre-tax distributions in any year exceed the applicable baseline pre-tax distribution amount, the variance would be held in a reserve account, pending the filing for Board approval of a depreciation study.

Alliance retained Gannett Fleming Canada ULC (Gannett Fleming) to conduct a depreciation study, which was based on Alliance's natural gas transmission assets as of December 31, 2014 (see Attachment 1). The resulting depreciation rates were based on the straight line method using the average service life procedure, applied on a remaining life basis. The study adopted an economic planning horizon ending December 31, 2034, reflecting current economic parameters representing the constraints impacting the overall pipeline life. Also attached to this submission is a natural gas supply and demand analysis conducted internally by Alliance, which supports this economic planning horizon approach (see Attachment 2). The resultant depreciation rate applicable to Alliance's Total Transmission Plant was 2.77%, with an overall composite depreciation rate of 2.75%.

[1] NEB RH-002-2014 Reasons for Decision, Chapter 8.1.1, page 73.

The results of the Gannett Fleming study were then updated to reflect Alliance's natural gas transmission assets as of December 31, 2015 (see Attachment 3). Utilizing the Original Cost of assets at December, 31, 2015, Future Accruals were adjusted to reflect the net book value of assets as of December 31, 2015. The Composite Remaining Life was adjusted by one year. For each account, the Annual Depreciation amount was calculated by dividing the Future Accruals amount by the corresponding Composite Remaining Life quantity. Likewise, each Annual Accrual Rate was calculated by dividing the Annual Depreciation amount by the corresponding Original Cost. Accordingly, as a result of this analysis, the overall composite depreciation rate applicable to the Alliance system, as of January 1, 2016, is 2.70%.

In its RH-002-2014 Reasons for Decision, the Board noted that Alliance's decrease in its depreciation rate to 2.8% was not supported by a depreciation study. Prior to making any distributions from its reserve account, the Board stated that Alliance must file for approval, a depreciation study to support its proposed depreciation rate. The Board further stated that if the study indicates that the applied-for rate is appropriate, Alliance may distribute any excess returns, including any reserve balances.[2] The attached depreciation study demonstrates that the applied-for rate is appropriate, and furthermore, substantiates that there certainly is no argument to increase the depreciation rate on a go-forward basis. Consequently, the reserve account no longer serves any purpose, and should be allowed to terminate.

Requested Relief

Alliance Pipeline Ltd., in its capacity as the General Partner of Alliance Pipeline Limited Partnership, hereby applies to the Board for an Order pursuant to Part IV of the *National Energy Board Act* approving its attached depreciation study and the associated composite depreciation rate of 2.70%, as well as the termination of its reserve account.

Please contact the undersigned if you have any questions.

Sincerely,

ALLIANCE PIPELINE LTD.

[Original Signed]

Brian Troicuk
Director, Regulatory Affairs
Alliance Pipeline Ltd.
Phone: 403-517-6354
Fax: 403-233-0735
Email: brian.troicuk@alliancepipeline.com

Attachments

cc: Alliance Pipeline Shipper Task Force

[2] NEB RH-002-2014 Reasons for Decision, Chapter 8.1.1, pages 72 and 73.

Attachment 1

Depreciation Study

ALLIANCE PIPELINE LIMITED PARTNERSHIP

CALGARY, ALBERTA

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES RELATED TO GAS PIPELINE ASSETS

Prepared by:

Excellence Delivered ***As Promised***

ALLIANCE PIPELINE LIMITED PARTNERSHIP
CALGARY, ALBERTA

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES RELATED TO GAS PIPELINE ASSETS

GANNETT FLEMING CANADA ULC

Calgary, Alberta

Gannett Fleming

*Excellence Delivered **As Promised***

January 23, 2016

Alliance Pipeline Limited Partnership
800, 605 5th Ave SW
Calgary Alberta
T2P 3H5
Attention: Mr. Neil Coghlan,
Controller

Pursuant to your request, we have conducted a depreciation study related to natural gas transmission pipeline assets of Alliance Pipeline Limited Partnership as of December 31, 2014. Our report presents a description of the methods used in the estimation of depreciation, the analyses undertaken to estimate the equal life group of the asset groups, and the summary and detailed tabulations of annual and accrued depreciation.

The calculated annual depreciation accrual rates presented in the report are applicable to plant in service assets as of December 31, 2014. The depreciation rates are based on the straight-line method, average service life procedure applied on a remaining life basis. An annual review of the depreciation rates using the same estimates and methods is recommended.

Respectfully submitted,

GANNETT FLEMING CANADA ULC

LARRY E. KENNEDY
Vice President

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ALLIANCE PIPELINE LIMITED PARTNERSHIP
DEPRECIATION STUDY

EXECUTIVE SUMMARY

Pursuant to Alliance Pipeline Limited Partnership's ("Alliance" or the "Company") request, Gannett Fleming Canada ULC ("Gannett Fleming") conducted a depreciation study related to the natural gas transmission ("transmission") assets as of December 31, 2014. The purpose of this study was to determine the annual depreciation accrual rates and amounts for regulatory objectives.

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 forecasting net salvage characteristic for each depreciable group of assets. Variances between the calculated accrued depreciation and the book accumulated depreciation as of December 31, 2014 are amortized over the remaining life of assets.

This study has adopted an economic planning horizon ending December 31, 2034, which reflects the current economic parameters representing the constraints impacting the overall pipeline life.

Gannett Fleming recommends the calculated annual depreciation accrual rates set forth herein apply specifically to transmission plant in service as of December 31, 2014 as summarized by Table 1 of the study by account detail. Supporting data and calculations are provided as well within the study.

Finally, this study results in an annual depreciation expense accrual of $63.4 million when applied to depreciable plant balances as of December 31, 2014. The study results are summarized at an aggregate functional group level as follows:

SUMMARY OF ORIGINAL COST, ACCRUAL PERCENTAGES AND AMOUNTS

	ORIGINAL COST	ANNUAL ACCRUAL	
PLANT GROUP	$'s	%'s	$'s
(1)	(2)	(3)	(4)
TRANSMISSION	2,289,058,915	2.77	63,412,367
OTHER ACCOUNTS	458,795,870	2.65	12,163,315
TOTAL PLANT IN SERVICE	**2,747,854,785**	**2.75**	**75,575,682**

PART I. INTRODUCTION

ALLIANCE PIPELINE LIMITED PARTNERSHIP
DEPRECIATION STUDY
PART I. INTRODUCTION

SCOPE

This report sets forth the results of the depreciation study for Alliance Pipeline Limited Partnership, to determine the annual depreciation accrual rates and amounts for regulatory purposes applicable to the original cost of transmission plant at December 31, 2014. 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 plant in service as of December 31, 2014.

The service life estimates resulting from the study were based on: informed engineering judgment which incorporated analyses of historical plant retirement data as recorded through December 31, 2014; 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 used for other large diameter transmission pipeline 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. Development of Depreciation Parameters, presents descriptions of the methods used in the service life and net salvage studies. Part III. Calculation of Annual and Accrued Depreciation presents the methods and procedures used in the calculation of depreciation. Part IV. Results of Study, presents summaries by depreciable group of annual and accrued depreciation. Part V. Detail Depreciation Calculations presents the detailed tabulations of annual and accrued depreciation.

BASIS OF THE STUDY

Depreciation

For most accounts, the annual and accrued depreciation were calculated by the straight line method using the ASL procedure applied on a remaining life basis. All types

of calculations were based on original cost, attained ages, and estimated service lives as of December 31, 2014.

The straight line method, ASL procedure is a commonly used depreciation calculation procedure that has been widely accepted in jurisdictions throughout North America. Gannett Fleming recommends its continued use for regulatory purposes.

Service Life Estimates

The service life 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 natural gas transmission pipeline industry, and comparisons of the service life estimates from our studies of other large diameter transmission pipelines. 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.

The depreciation rates should be reviewed periodically to reflect the changes that result from plant and accumulated depreciation account activity. A depreciation reserve deficiency or surplus will develop if future capital expenditures vary significantly from those anticipated in this study.

PART II. DEVELOPMENT OF DEPRECIATIONS PARAMETERS

PART II. DEVELOPMENT OF DEPRECIATION PARAMETERS

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 transportation 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.

The calculation of annual and accrued depreciation based on the straight line method requires the estimation of survivor curves and is described in the following sections of this report. The development of the proposed depreciation rates also requires the selection of appropriate depreciation procedures, as discussed in Part III of this report.

ESTIMATION OF SURVIVOR CURVES

Survivor Curves

The use of an average service life for linear pipelines recognizes that assets within the property accounts that can 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 using the retirement rate method of analysis.

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 in relationship to the average life and relative height of the modes. The left-moded curves are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical-moded curves are those in which the greatest frequency of retirement occurs at average service life. The right-moded curves are those in which the greatest frequency occurs to the right of, or after, the average service life. The origin-moded curves are those in which the greatest frequency of retirement occurs at the origin, or immediately after age 0. The letter designation of each family of curves (L, S, R or O) represents the mode of the associated frequency curve with respect to the average service life. The numerical subscripts represent the relative heights of the modes of the frequency curves within each family.

A discussion of the general concept of survivor curves and the retirement rate method is presented in Appendix A of this report.

Survivor Curve Judgments

The survivor curve estimates were based on judgment which considered a number of factors. The primary factors were the statistical analysis of data; current policies and outlook as determined during conversations with management personnel and on the knowledge Gannett Fleming developed through the completion of numerous electric utility studies.

The following discussion, dealing with a number of accounts which comprise the majority of the investment analyzed, presents an overview of the factors considered by Gannett Fleming in the determination of the average service life estimates. The survivor curve estimates for the remainder of the accounts not discussed in the following sections were based on similar considerations.

The following were the peer group of companies reviewed in order to develop average service life estimates:

- TransCanada Pipelines Limited;

- Kinder Morgan;
- Enbridge Pipelines Inc.; and
- FortisBC Energy Inc.

The above companies were considered as peer companies on the basis of the following criteria:

- All have had depreciation studies recently completed by Gannett Fleming. As such Gannett Fleming is familiar with the physical plant, operating circumstances and management policies affecting depreciation for each company;
- All are large diameter, regulated, long haul pipelines; and
- All have a significant level of retirement experience for which studies of actual historic retirement transactions were made.

Following is a specific discussion of the factors considered in the determination of the average service life for the accounts with significant amounts of investment.

Account 465.00 – Mainline Pipe - This account represents 63.7% of the depreciable plant as of December 31, 2014. The average service life indication for this account recognized the indications from the Pipeline Integrity and Corridor Management group which provided information regarding the increased standards of the Alliance pipe as compared to the peer industry installations. The pipeline was built to an increased standard due to the requirement to operate at a higher than normal operating pressure.

The National Energy Board of Canada ("NEB") required that Alliance, like all new large diameter pipelines, complete a baseline pigging program within five years of being placed into service. Additionally, the pipeline is subjected to a five to seven year inspection pigging cycle in the periods following the baseline inspection. Given the original in-service date of 2000, this aggressive inspection pigging program is very proactive in nature. It is also noted that the inspection programs are completed using high resolution inspection tools.

The technology and materials employed in the milling of the pipe employed state of the art processes. The testing of the pipe at the time of construction was far more extensive than the testing required of the pipe installed by other peer large diameter pipelines. The increased testing and more aggressive pigging inspection programs are

a result of the higher operating pressure of the Alliance system as compared to historic natural gas transmission pipelines.

Given the system integrity programs, the increased testing requirements at the time of the Alliance pipe manufacture, and the proactive pipe inspection program, Gannett Fleming recommends the use of a 70 average service life. Additionally Gannett Fleming views that the Iowa R4 retirement dispersion curve is appropriate. Therefore, Gannett Fleming has incorporated the use of the Iowa 70-R4 curve into the depreciation rate calculations for this account.

Account 466.00 – Compressor - This account represents 16.2% of the depreciable plant as of December 31, 2014. The average service life indication for this account was based on the comments of the internal operating staff, and on the experience of Gannett Fleming in the selection of compression average service life estimates for the peer group of companies. The Alliance system is comprised of two distinct compressing functions. Firstly, the "field compression" which is comprised of a mix of reciprocating and turbine equipment to bring the receipt pressure up to 1,250 psi. Over the past 15 years of operating history, some of the reciprocating equipment has required replacement. The view of the operating staff is that field compression equipment would have a life expectancy of 30 years.

In addition to the field compression equipment, the Alliance system includes a number of "mainline compressors" which increase the operating pressure from 1,250 psi to 1,760 psi. This equipment is all driven by turbine engines that run at or above capacity. While this equipment has shown to be reliable to date, it is subjected to on-going inspections every 4,000 operating hours, with larger inspections undertaken at 8,000 hours. Additionally, the equipment is overhauled every 16,000 to 24,000 hours. It is the view of the operating staff that this mainline compression equipment should have a life expectancy of at least 35 years. Based on the experience of Gannett Fleming and the views of the internal Alliance operating staff, an Iowa 35-R2.5 is recommended for this account.

Account 469.10 – Lateral Pipe - This account represents 11.7% of the depreciable plant as of December 31, 2014. This pipe is typically smaller in diameter and of shorter length used as receipt and delivery laterals. Most investment in this

account relates to approximately 730 km of lateral pipelines connected to 52 natural gas receipt locations, primarily at gas processing facilities in northwestern Alberta and northeastern British Columbia.

The average service life of laterals is shorter than that used for the mainline pipe. Laterals are subject to the natural gas supply of the specific supply source or delivery market. The smaller diameter lateral pipe is also not internally inspected and subjected to an increased number of forces of retirement.

Given the increased number of forces of future retirement of laterals, combined with the experience of the broader group of peer pipelines, Gannett Fleming views that the Iowa 50-R2 is appropriate at this time.

Account 467.00 – Meter Station - This account represents 2.3% of the depreciable plant as of December 31, 2011 and relates to the assets at both the receipt and delivery points. Booster compression equipment is also included in this account at five receipt points. The metering within the Alliance system is completely comprised of ultra-sonic equipment. To date the heads on the ultra-sonic meters have required replacement. Alliance has received a waiver of the requirement of Measurement Canada Standard S.S.06 which will allow for a reduced frequency of testing and proving of the meters. The internal Alliance metering staff has indicated an expected life expectancy of 35 years.

Given that the entire fleet is comprised of ultra-sonic meters, and that Alliance is subjected to less frequent testing, Gannett Fleming view is that an average service life that is on the long side of the peer pipeline group is reasonable. Therefore, Gannett Fleming recommends the Iowa 35-R2.5 for this account.

Remaining Accounts - The above analysis provides the consideration relating to almost 94% of the depreciable plant. The analysis of the accounts relating to the remaining 6% of the investment as of December 31, 2014 considered a similar review of operational comments, peer reviews and experience of Gannett Fleming.

Economic Planning Horizon

The service life of the Alliance Pipeline Limited Partnership assets is restricted not only by physical forces of retirement such as wear and tear and deterioration, but

also, and more significantly, by economic forces of retirement. Generally, physical forces of retirement are less likely to occur than retirement of large portions of the pipeline system due to economic forces. Specifically, the economic exhaustion of natural gas supply, the changing North American marketplace for natural gas demand, and the competitive influences in the Western Canada Sedimentary Basin have a significant impact on the estimated service lives of the Alliance system.

The concept referred to with the terms “economic life” or “economic planning horizon” or “truncation date” (which has similar meaning within depreciation literature) is the key parameter used to set appropriate depreciation rates that accurately reflect the annual consumption in service value. Appropriate depreciation rates also help to ensure that both long term generational equity and a reasonable opportunity for the recovery of investment are achievable, over the expected useful life of the pipeline assets.

The economic planning horizon for a system comprised of one large single asset, is generally set to a single date that represents the estimated end of the planning horizon (or economic life) of the entire system. Gannett Fleming views that the determination of the anticipated economic life of large diameter transmission pipelines can be based on a number of different factors. While these factors are criteria for the development of an economic planning horizon from a theoretical standpoint, it is important to note that not all factors affecting economic life may be relevant to every transmission pipeline. Generally, the appropriate economic life is developed from the merger of a number of these factors.

Gannett Fleming views that the following are appropriate factors to consider in determining an economic planning horizon for large diameter transmission pipelines:

1. Availability of supply to the pipeline;
2. Availability of market demand;
3. Consumption of service value;
4. Engineering based retirement studies;
5. Competitiveness of the pipeline;
6. Opportunity for the recovery of the investment;
7. Projected long term use of the pipeline;
8. Approved economic planning horizons of peer companies; and

9. Management discretion.

When consideration is given to the use of the above factors, whether individually considered or reviewed in combinations, it is critical to note that the overall goal of inclusion of economic life considerations in the development of depreciation rates is to provide for a reasonable assurance of recovery of invested capital proportionally from those using the pipeline system, and over the expected useful life of the pipeline.

The Alliance pipeline system was originally approved by the NEB, with an estimated economic life of 25 years. As such, the original contractual agreements and transportation tolls were developed on the assumption of a 25-year economic life.

A supply and market demand study undertaken by Alliance as part of this depreciation study has not indicated that it is likely that the Alliance system will be uneconomic after the year 2025. While it is currently anticipated that the system will be contracted for service through contract renewals and will be competitive with other natural gas pipelines sourcing supply from the Western Canadian Sedimentary Basin for the next 20-year period, however, the contracting circumstances beyond 2034 are not known. Therefore, an economic planning horizon extending beyond 2034 is not reasonable.

The depreciation rates of most federally regulated North American transmission pipelines have recognized the economic influences in the determination of the remaining lives of the systems. Over a period through 1999 most regulators have approved a 25-year planning horizon into the depreciation rates. As such, the concept of planning horizons was widely used for regulatory purposes.

It is the view of Gannett Fleming that recognition of an economic life must be incorporated into the depreciation rates of Alliance. The planning horizon is meant to indicate the average date of significant terminal pipeline retirement. As this date is based on an average of the expected retirement of significant portions of the pipeline system, the planning horizon is not the expected date of cessation of natural gas transportation service on the Alliance Pipeline. For example, it may be expected that not all of the mainline compressors or compression equipment will retire at one time due to economic conditions. Rather a pattern of rationalization of compression equipment developed in the future based on the facts and circumstances at that time may be the

most reasonable approach. As such, a significant portion of the compression equipment may terminally retire prior to the planning horizon date and a significant portion may retire after. However, the planning horizon represents a reasonable average expectation at this time.

Based on the review of the criteria discussed above, Gannett Fleming views that the economic planning horizon developed internally by Alliance is reasonable. Therefore, Gannett Fleming recommends the incorporation of a 20-year planning horizon into the depreciation rate calculations. Additionally, Gannett Fleming recommends that Alliance monitor the recovery of its investment in this line in order that subsequent capital additions are fully recovered through the period ending over which the investment provides service to the customer. The planning horizon is incorporated in the estimated survivor characteristics by truncating the survivor curve which represents the physical life of the facilities at the attained age of each vintage as of December 31, 2034.

PART III. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

PART III. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

Group Depreciation Procedures

When more than a single item of property is under consideration, a group procedure for depreciation is appropriate because normally all of 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, the average service life and equal life group procedures.

In the average service life procedure, the rate of annual depreciation is based on the average service 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 the 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.

In the Equal Life Group ("ELG") procedure, the property group is subdivided according to service life. That is, each equal life group includes that portion of the property which experiences the life of that specific group. The relative size of each equal life group is determined from the property's life dispersion curve. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each equal life group.

In the determination of the depreciation rates in this study, the use of the average service life procedure has been used. While the equal life group procedure provides an enhanced matching of depreciation expense to the consumption of service value, the average service life procedure is widely used throughout North America and was used in order to conform to past regulatory practices of this company and by other NEB regulated transmission pipelines.

MONITORING OF BOOK ACCUMULATED DEPRECIATION

For the purposes of calculating remaining life accrual rates, the book depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. 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 service life characteristics and net salvage materialize and are used as a basis for depreciation accounting.

In the average life group 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 for the surviving original cost of that vintage. The average remaining life is defined by the estimated future survivor curve.

The annual accrual rate for each account is equal to the sum of the remaining life annual accruals divided by the total original cost. The composite remaining life is calculated by dividing the sum of the future book accruals by the sum of the remaining life annual accruals.

PART IV. RESULTS OF STUDY

PART IV. 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 for the change of the composition of property in service. The annual accrual rates and the accrued depreciation were calculated in accordance with the straight line method, using the equal life group procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

DESCRIPTION OF DETAILED TABULATIONS

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 pipelines.

The tables of the calculated annual depreciation applicable to depreciable assets as of December 31, 2014 are presented in account sequence starting on page V-2 of the supporting documents. The tables indicate the estimated average survivor curves used in the calculations. The tables set forth, for each installation year, the original cost, calculated accrued depreciation, and the calculated annual accrual.

ALLIANCE PIPELINE LIMITED PARTNERSHIP

TABLE 1. ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AT DECEMBER 31, 2014
($ CND)

ACCOUNT	DEPRECIABLE WORK	SURVIVOR CURVE (*)	NET SALVAGE	ORIGINAL COST AT DECEMBER 31, 2014	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(7)/(4)	(9)
	TRANSMISSION PLANT								
461.00	LAND RIGHTS	70-R4	0	49,491,290	24,121,224	25,370,066	1,270,409	2.57	20.0
462.10	COMPRESSOR STRUCTURES AND IMPROVEMENTS	45-R2	0	9,878,661	4,635,271	5,243,389	287,624	2.91	18.2
462.20	COMPRESSOR STRUCTURES BCX	45-L2	0	908,548	424,792	483,756	25,501	2.81	19.0
463.00	METER STATIONS AND STRUCTURES	35-R3	0	1,426,102	710,485	715,616	41,873	2.94	17.1
463.10	BLOCK VALVES	50-R3	0	5,490,060	2,734,989	2,755,071	144,471	2.63	19.1
465.00	MAINLINE PIPE	70-R4	0	1,458,090,839	724,858,199	733,232,640	36,864,386	2.53	19.9
465.10	LINEPACK GAS	40-SQ	0	26,202,208	12,855,517	13,346,691	667,335	2.55	20.0
466.00	COMPRESSOR	35-R2.5	0	370,757,747	174,760,662	195,997,084	11,573,430	3.12	16.9
466.10	COMPRESSOR - BCX	25-R3	0	30,116,989	14,073,357	16,043,631	959,547	3.19	16.7
467.00	METER STATION	35-R2.5	0	52,684,992	25,691,431	26,993,561	1,591,086	3.02	17.0
468.00	SCADA AND COMMUNICATIONS	13-R2	0	16,086,640	8,009,574	8,077,066	2,756,678	17.14	2.9
469.10	LATERAL PIPE	50-R2	0	267,874,556	133,439,161	134,435,395	7,227,709	2.70	18.6
469.20	MISCELLANEOUS	25-R3	0	50,284	23,183	27,101	2,318	4.61	11.7
	TOTAL TRANSMISSION PLANT			**2,289,058,915**	**1,126,337,847**	**1,162,721,067**	**63,412,367**	**2.77**	
	OTHER ACCOUNTS								
	AFUDC			299,053,884	149,007,629	150,046,255	7,882,221	2.64	19.0
	AFUDC BCX			574,946	268,665	306,281	16,090	2.80	19.0
	CAPITALIZED OVERHEAD			150,410,528	74,886,056	75,524,472	3,967,447	2.64	19.0
	CAPITAL SPARES			8,756,513	3,092,194	5,664,319	297,558	3.40	19.0
	TOTAL OTHER ACCOUNTS			**458,795,870**	**227,254,543**	**231,541,327**	**12,163,315**	**2.65**	
	TOTAL PLANT			**2,747,854,786**	**1,353,592,390**	**1,394,262,394**	**75,575,682**	**2.75**	

*Survivor curve used to estimate interim retirement activity. A life span date of December 31, 2034 was used in the depreciation rate calculations.

PART V. DETAILED DEPRECIATION CALCULATIONS

INTERIM SURVIVOR CURVE.. IOWA 70-R4
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2009	49,491,289.76	10,687,149	24,121,224	25,370,066	19.97	1,270,409
	49,491,289.76	10,687,149	24,121,224	25,370,066		1,270,409

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.0 2.57

INTERIM SURVIVOR CURVE.. IOWA 45-R2
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2000	9,878,660.84	4,154,273	4,635,271	5,243,389	18.23	287,624
	9,878,660.84	4,154,273	4,635,271	5,243,389		287,624

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.2 2.91

INTERIM SURVIVOR CURVE.. IOWA 45-L2
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2008	908,547.96	229,999	424,792	483,756	18.97	25,501
	908,547.96	229,999	424,792	483,756		25,501

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.0 2.81

INTERIM SURVIVOR CURVE.. IOWA 35-R3
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2000	1,426,101.54	636,341	710,485	715,616	17.09	41,873
	1,426,101.54	636,341	710,485	715,616		41,873

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.1 2.94

INTERIM SURVIVOR CURVE.. IOWA 50-R3
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2000	5,490,060.00	2,338,491	2,734,989	2,755,071	19.07	144,471
	5,490,060.00	2,338,491	2,734,989	2,755,071		144,471

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.1 2.63

INTERIM SURVIVOR CURVE.. IOWA 70-R4
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2000	1,458,090,839.00	614,293,670	724,858,199	733,232,640	19.89	36,864,386
	1,458,090,839.00	614,293,670	724,858,199	733,232,640		36,864,386

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.9 2.53

INTERIM SURVIVOR CURVE.. SQUARE
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2000	26,202,208.20	11,012,526	12,855,517	13,346,691	20.00	667,335
	26,202,208.20	11,012,526	12,855,517	13,346,691		667,335

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.0 2.55

INTERIM SURVIVOR CURVE.. IOWA 35-R2.5
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2000	370,150,462.50	162,507,158	174,687,281	195,463,182	16.93	11,545,374
2012	607,284.04	68,265	73,381	533,903	19.03	28,056
	370,757,746.54	162,575,423	174,760,662	195,997,084		11,573,430

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 16.9 3.12

INTERIM SURVIVOR CURVE.. IOWA 25-R3
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2008	30,116,988.80	8,213,806	14,073,357	16,043,631	16.72	959,547
	30,116,988.80	8,213,806	14,073,357	16,043,631		959,547

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 16.7 3.19

INTERIM SURVIVOR CURVE.. IOWA 35-R2.5
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2000	52,123,652.28	22,883,847	25,634,513	26,489,139	16.93	1,564,627
2010	228,594.41	42,535	47,648	180,946	18.81	9,620
2014	332,745.43	8,275	9,270	323,476	19.21	16,839
	52,684,992.12	22,934,657	25,691,431	26,993,561		1,591,086

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.0 3.02

INTERIM SURVIVOR CURVE.. IOWA 13-R2
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2000	16,086,640.42	12,461,033	8,009,574	8,077,066	2.93	2,756,678
	16,086,640.42	12,461,033	8,009,574	8,077,066		2,756,678

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 2.9 17.14

INTERIM SURVIVOR CURVE.. IOWA 50-R2
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2000	267,874,556.20	112,172,470	133,439,161	134,435,395	18.60	7,227,709
	267,874,556.20	112,172,470	133,439,161	134,435,395		7,227,709

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.6 2.70

INTERIM SURVIVOR CURVE.. IOWA 25-R3
PROBABLE RETIREMENT YEAR.. 12-2034
NET SALVAGE PERCENT.. 0

2000	50,283.92	26,658	23,183	27,101	11.69	2,318
	50,283.92	26,658	23,183	27,101		2,318

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.7 4.61

APPENDIX A

ESTIMATION OF SURIVOR CURVES

ESTIMATION OF SURVIVOR CURVES

Average Service Life

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. A discussion of the general concept of survivor curves is presented. Also, the Iowa type survivor curves are reviewed.

SURVIVOR CURVES

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.

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

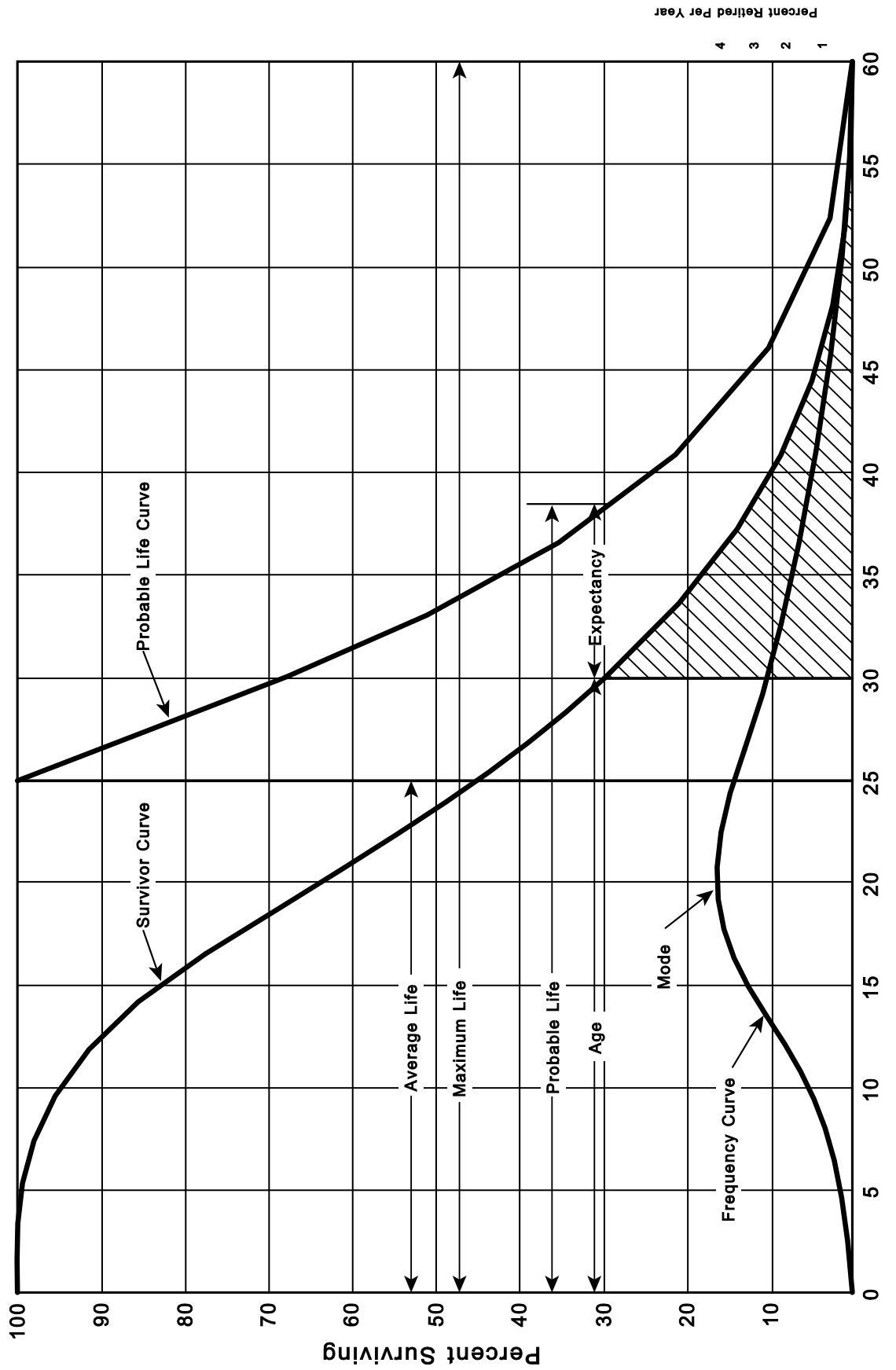


Figure 1. A Typical Survivor Curve and Derived Curves

Iowa type curves. There are four families in the Iowa system, labeled in accordance with the location of the modes of the 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.

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.[1] These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."[2] In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis[3] presenting his development of the fourth family consisting of the four O type survivor curves.

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

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

[3] Couch, Frank V. B., Jr. "Classification of Type O Retirement Characteristics of Industrial Property." Unpublished M.S. thesis (Engineering Valuation). Library, Iowa State College, Ames, Iowa. 1957.

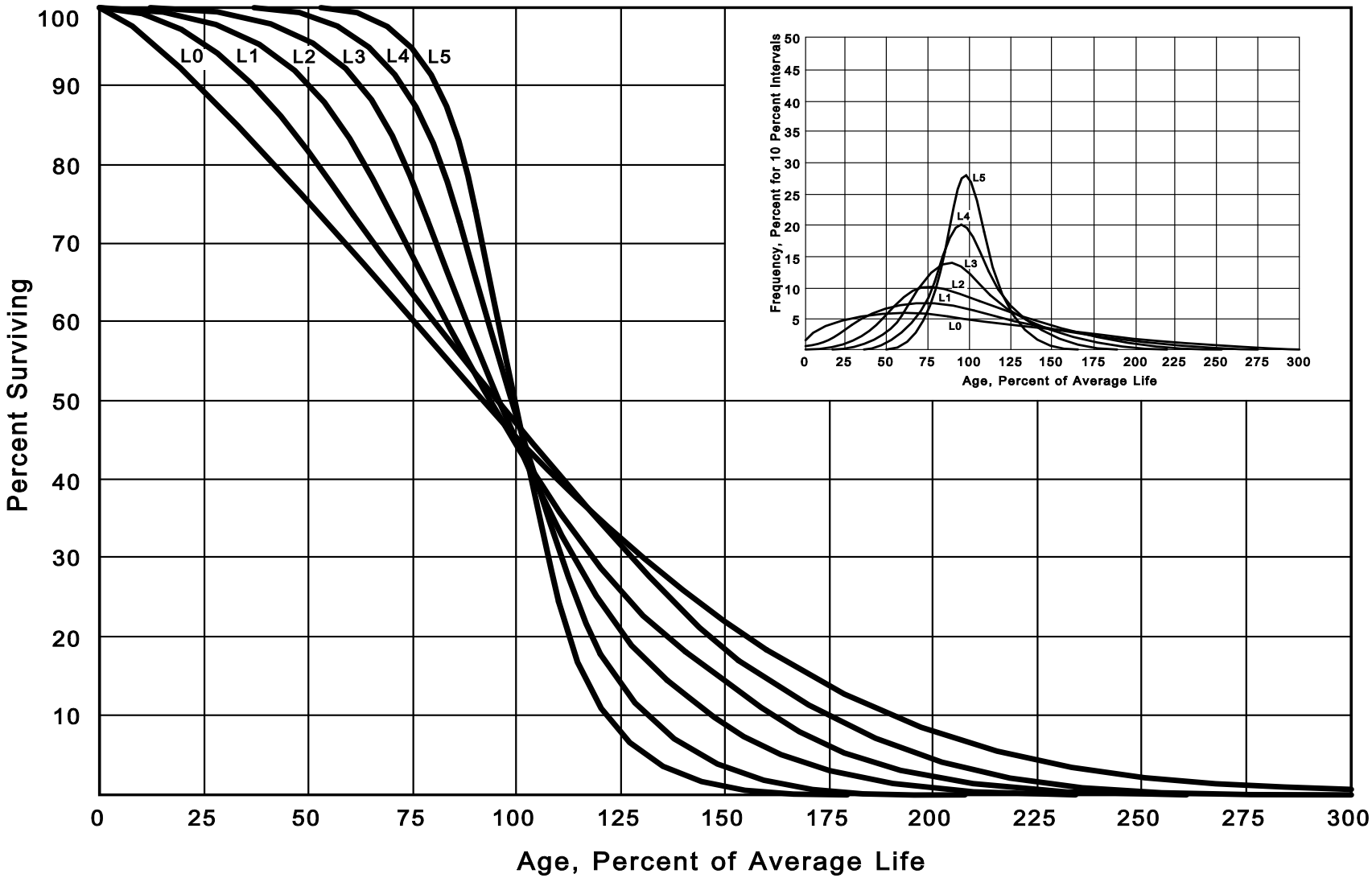


Figure 2. Left Modal or "L" Iowa Type Survivor Curves

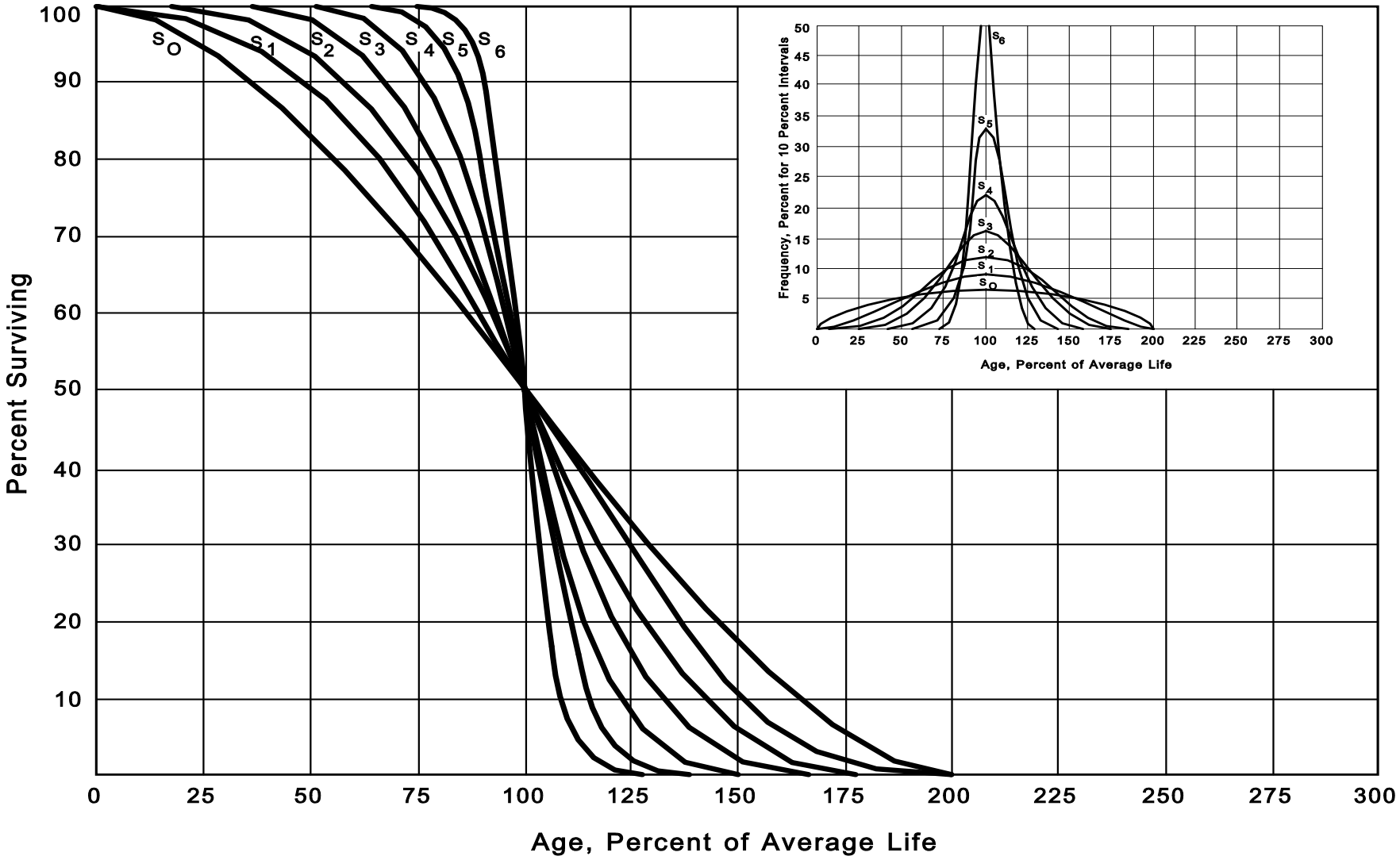


Figure 3. Symmetrical or "S" Iowa Type Survivor Curves

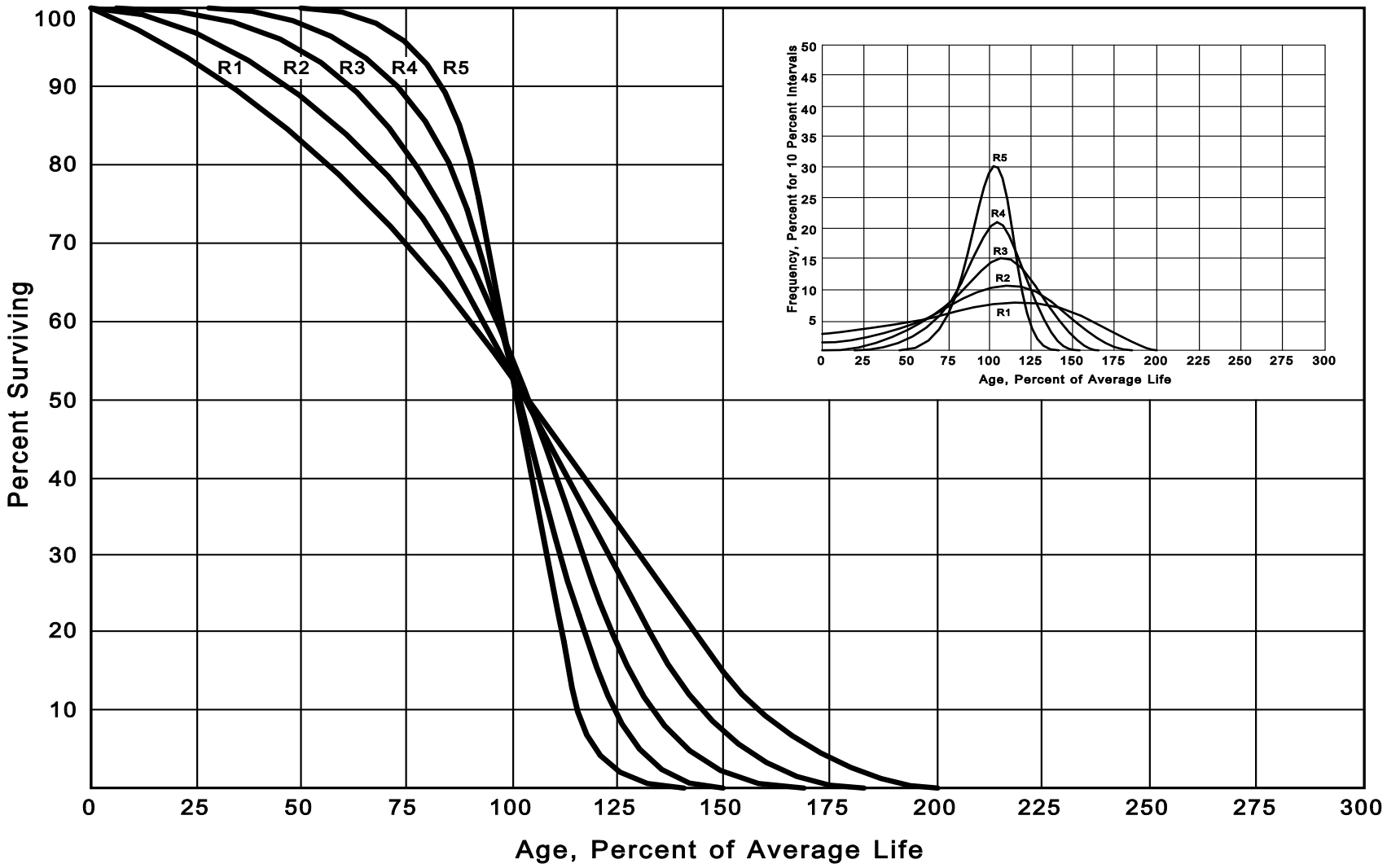


Figure 4. Right Modal or "R" Iowa Type Survivor Curves

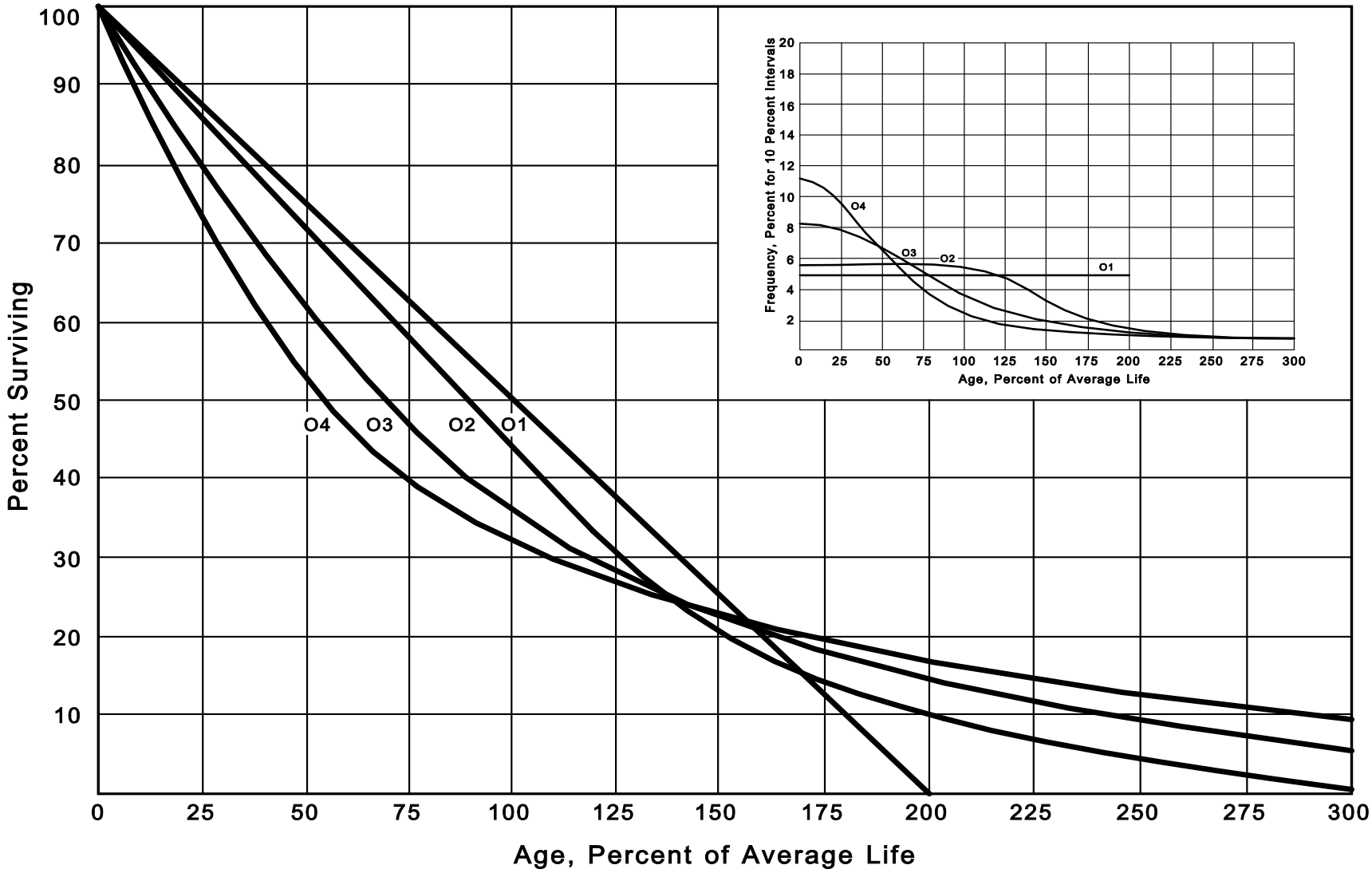


Figure 5. Origin Modal or "O" Iowa Type Survivor Curves

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,"[4] "Engineering Valuation and Depreciation,"[5] and "Depreciation Systems."[6]

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, and 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.

Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2005-2014 during which there were placements during the years 2000-2014. 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 the following pages. 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 2000 were

[4]Winfrey, Robley, Supra Note 1.
[5]Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 2.
[6]Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2005-2014
SUMMARIZED BY AGE INTERVAL

Experience Band 2005-2014 Placement Band 2000-2014

Year Placed	Retirements, Thousands of Dollars During Year										Total During Age Interval	Age Interval
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1999	10	11	12	13	14	16	23	24	25	26	26	13½-14½
2000	11	12	13	15	16	18	20	21	22	19	44	12½-13½
2001	11	12	13	14	16	17	19	21	22	18	64	11½-12½
2002	8	9	10	11	11	13	14	15	16	17	83	10½-11½
2003	9	10	11	12	13	14	16	17	19	20	93	9½-10½
2004	4	9	10	11	12	13	14	15	16	20	105	8½-9½
2005		5	11	12	13	14	15	16	18	20	113	7½-8½
2006			6	12	13	15	16	17	19	19	124	6½-7½
2007				6	13	15	16	17	19	19	131	5½-6½
2008					7	14	16	17	19	20	143	4½-5½
2009						8	18	20	22	23	146	3½-4½
2010							9	20	22	25	150	2½-3½
2011								11	23	25	151	1½-2½
2012									11	24	153	½-1½
2013										13	80	0-½
Total	53	68	86	106	128	157	196	231	273	308	1,606	

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2005-2014
SUMMARIZED BY AGE INTERVAL

Experience Band 2005-2014 Placement Band 2000-2014

Year Placed	Acquisitions, Transfers and Sales, Thousands of Dollars During Year										Total During Age Interval	Age Interval
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1999	-	-	-	-	-	-	60[a]	-	-	-	-	13½-14½
2000	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2001	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2002	-	-	-	-	-	-	-	(5)[b]	-	-	60	10½-11½
2003	-	-	-	-	-	-	-	6[a]	-	-	-	9½-10½
2004	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2005		-	-	-	-	-	-	-	-	-	-	7½-8½
2006			-	-	-	-	-	-	-	-	-	6½-7½
2007				-	-	-	-	(12)[b]	-	-	-	5½-6½
2008					-	-	-	-	22[a]	-	-	4½-5½
2009						-	-	(19)[b]	-	-	10	3½-4½
2010							-	-	-	-	-	2½-3½
2011								-	-	(102)[c]	(121)	1½-2½
2012									-	-	-	½-1½
2013												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.

retired in 2005. 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 2005 retirements of 2000 installations and ending with the 2014 retirements of the 2009 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.

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 the following page. The surviving plant at the beginning of each year from 2005 through 2014 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

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT JANUARY 1
OF EACH YEAR 2005-2014
SUMMARIZED BY AGE INTERVAL

Experience Band 2005-2014

Placement Band 2000-2014

Year Placed	Exposures, Thousands of Dollars — Annual Survivors at the Beginning of the Year										Total at Beginning of Age Interval	Age Interval
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1999	255	245	234	222	209	195	239	216	192	167	167	13½-14½
2000	279	268	256	243	228	212	194	174	153	131	323	12½-13½
2001	307	296	284	271	257	241	224	205	184	162	531	11½-12½
2002	338	330	321	311	300	289	276	262	242	226	823	10½-11½
2003	376	367	257	346	334	321	307	267	280	261	1,097	9½-10½
2004	420[a]	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2005		460[a]	455	444	432	419	405	390	374	356	1,952	7½-8½
2006			510[a]	504	492	479	464	448	431	412	2,463	6½-7½
2007				580[a]	574	561	546	530	501	482	3,057	5½-6½
2008					660[a]	653	639	623	628	609	3,789	4½-5½
2009						750[a]	742	724	685	663	4,332	3½-4½
2010							850[a]	841	821	799	4,955	2½-3½
2011								960[a]	949	923	5,719	1½-2½
2012									1,080[a]	1,069	6,579	½-1½
2013										1,220[a]	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	

[a] Additions during the year.

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 2006 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

For the entire experience band 2005-2014, 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 the following page**,** 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

SCHEDULE 4. ORIGINAL LIFE TABLE

CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2005-2014 Placement Band 2000-2014

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval (1)	Exposures at Beginning of Age Interval (2)	Retirements During Age Interval (3)	Retirement Ratio (4)	Survivor Ratio (5)	Percent Surviving at Beginning of Age Interval (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	167	26	0.1557	0.8443	42.24
					35.66
Total	44,780	1,606			

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.

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. 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.

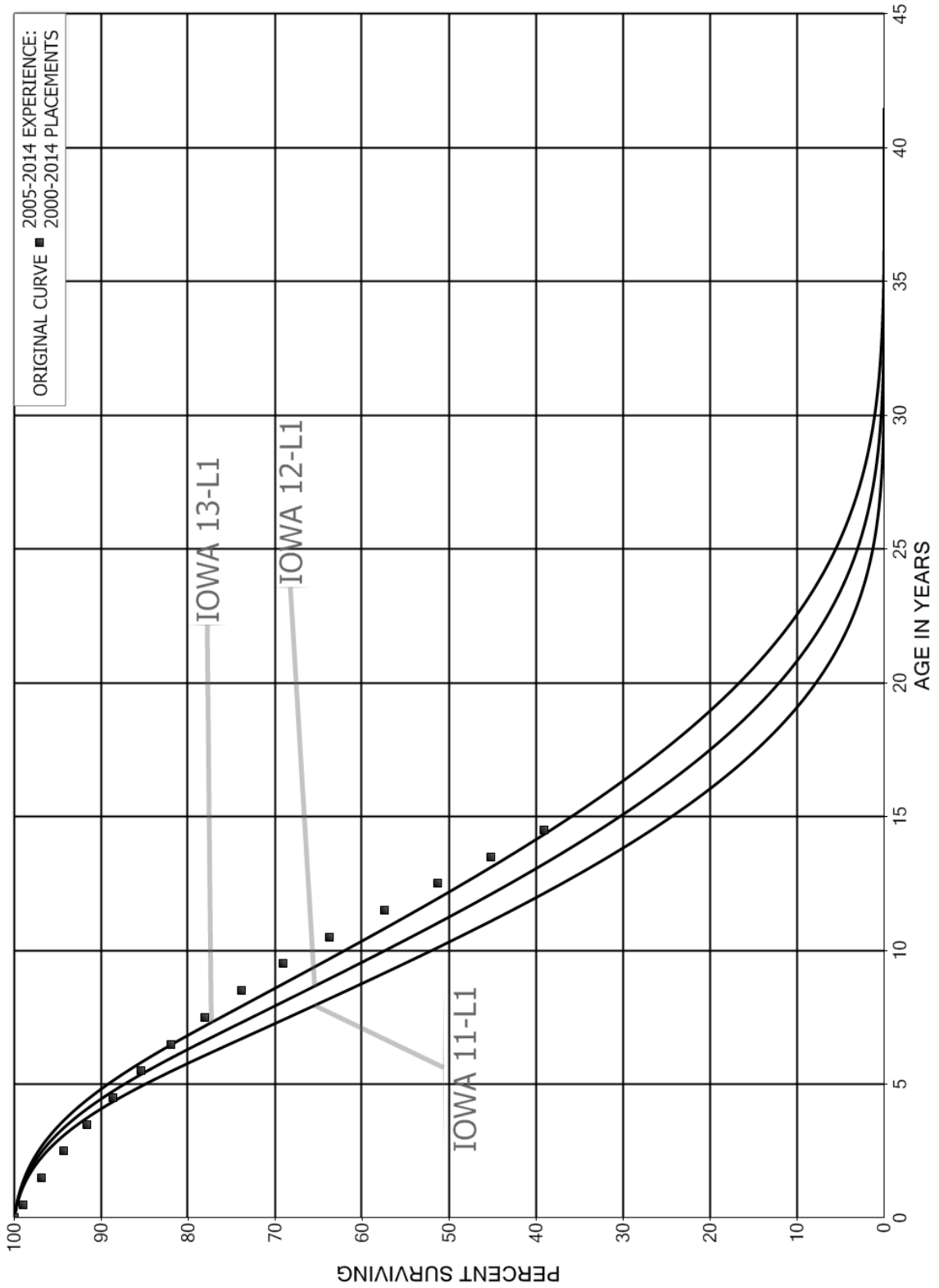
Smoothing the Original Survivor Curve

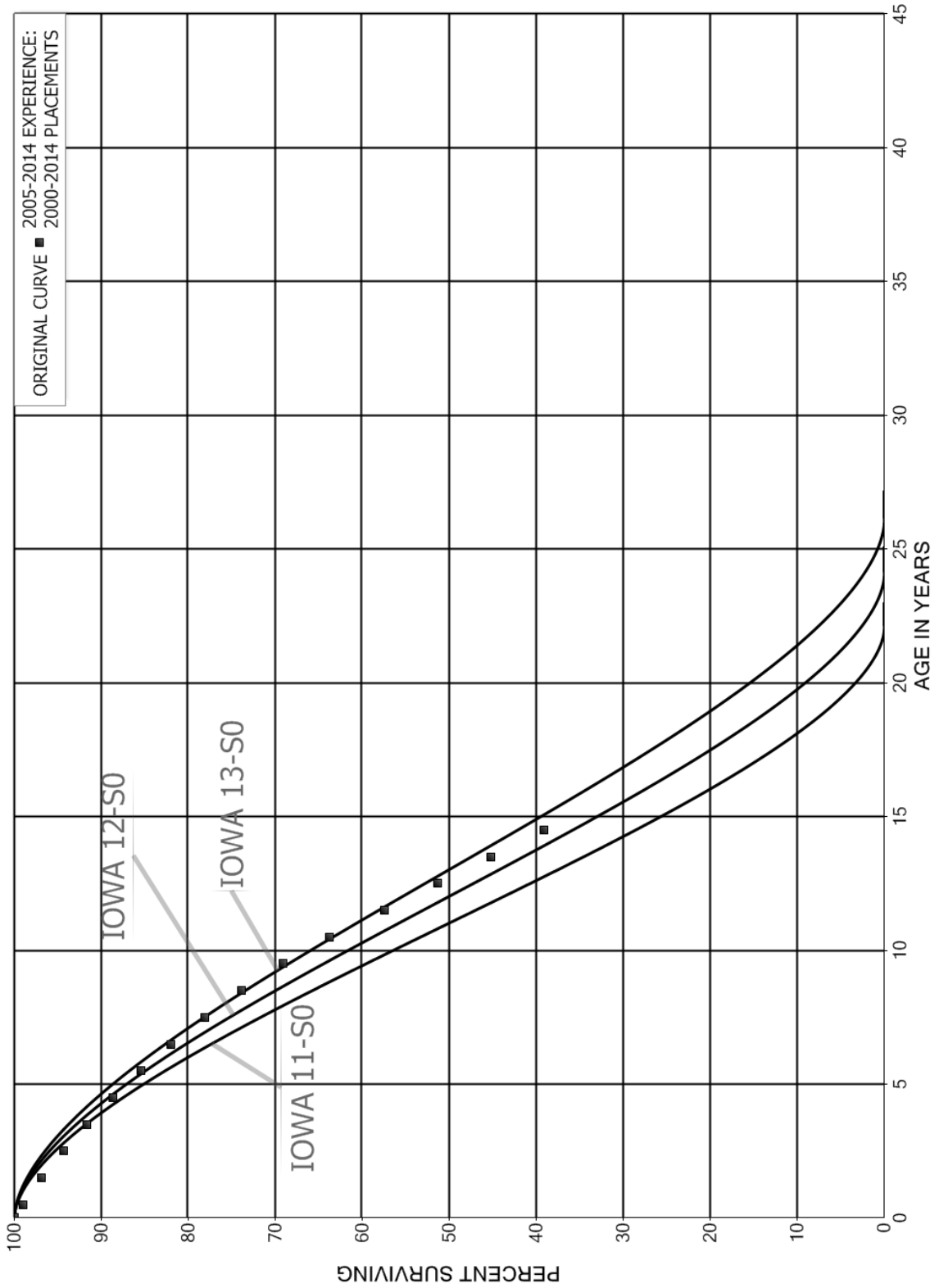
The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100% to zero percent, it is desirable to eliminate any irregularities, 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.

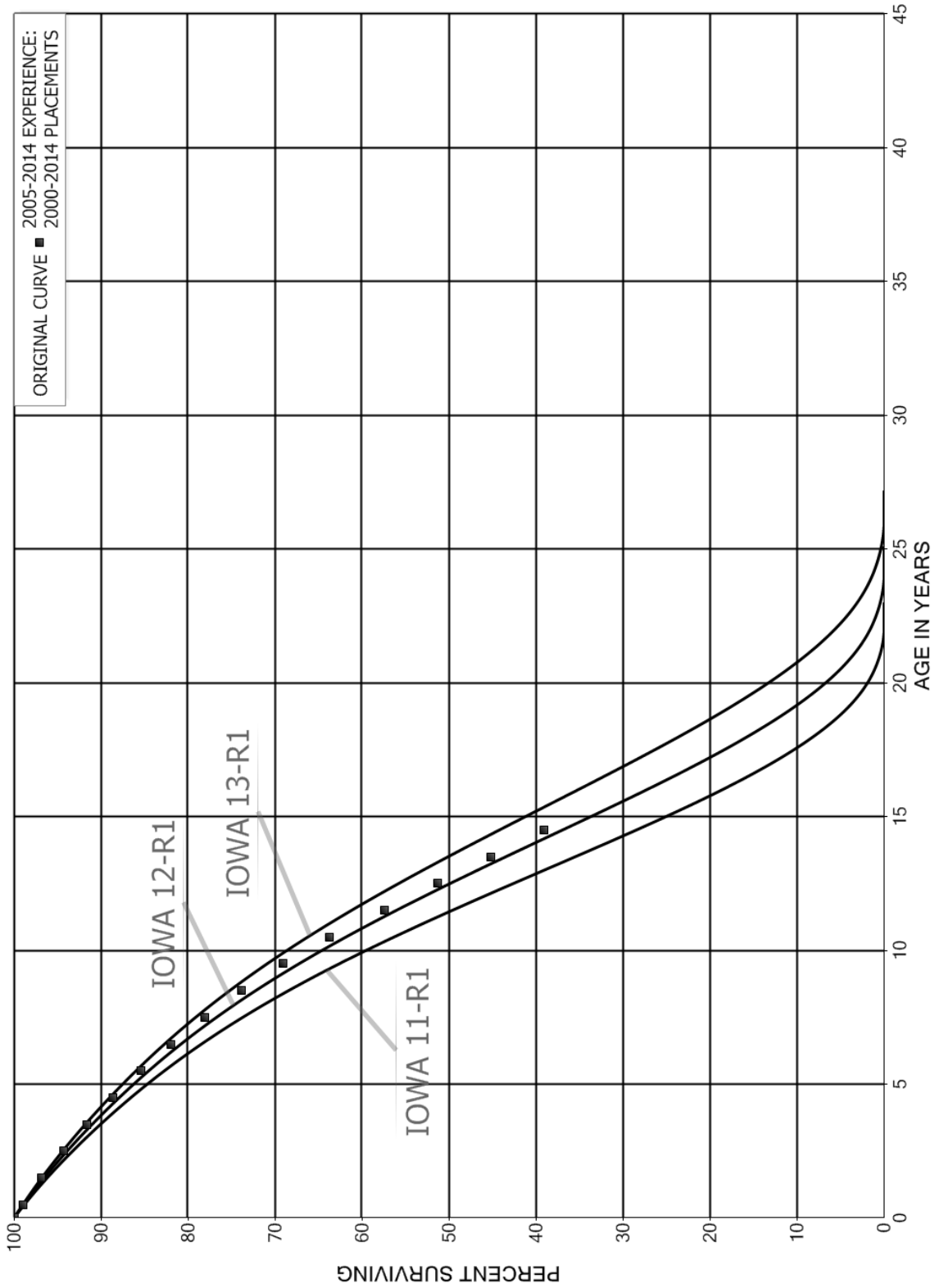
The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percents surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 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.


ORIGINAL CURVE ■ 2005-2014 EXPERIENCE:
2000-2014 PLACEMENTS
IOWA 13-L1
IOWA 12-L1
IOWA 11-L1
PERCENT SURVIVING
AGE IN YEARS
100
90
80
70
60
50
40
30
20
10
0
0
5
10
15
20
25
30
35
40
45


ORIGINAL CURVE ■ 2005-2014 EXPERIENCE: 2000-2014 PLACEMENTS
IOWA 12-S0
IOWA 13-S0
IOWA 11-S0
PERCENT SURVIVING
100
90
80
70
60
50
40
30
20
10
0
0
5
10
15
20
25
30
35
40
45
AGE IN YEARS


ORIGINAL CURVE ■ 2005-2014 EXPERIENCE: 2000-2014 PLACEMENTS
IOWA 12-R1
IOWA 13-R1
IOWA 11-R1
PERCENT SURVIVING
100
90
80
70
60
50
40
30
20
10
0
AGE IN YEARS
0
5
10
15
20
25
30
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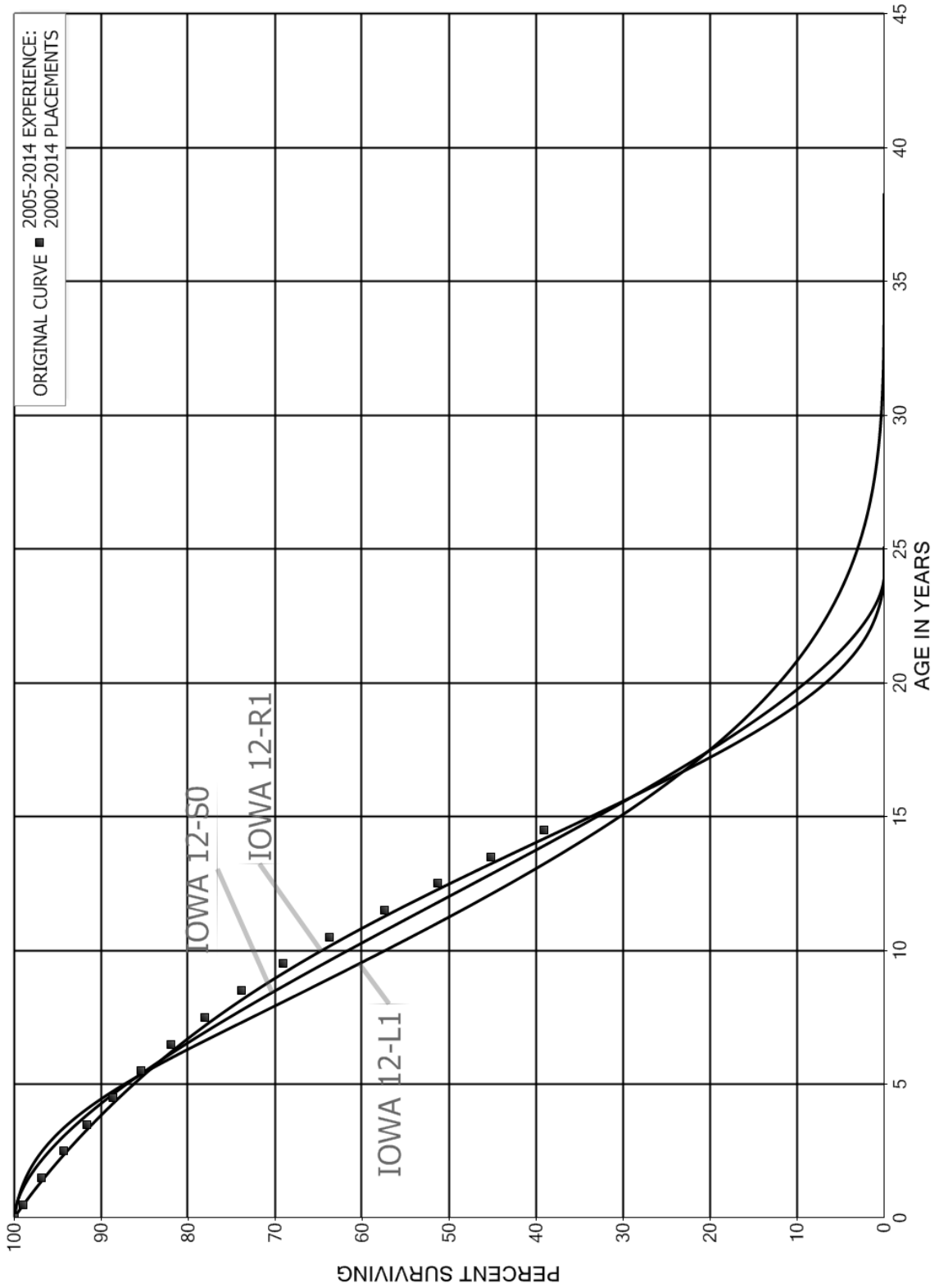
ORIGINAL CURVE ■ 2005-2014 EXPERIENCE: 2000-2014 PLACEMENTS
IOWA 12-S0
IOWA 12-R1
IOWA 12-L1
PERCENT SURVIVING
100
90
80
70
60
50
40
30
20
10
0
AGE IN YEARS
0
5
10
15
20
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30
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40
45

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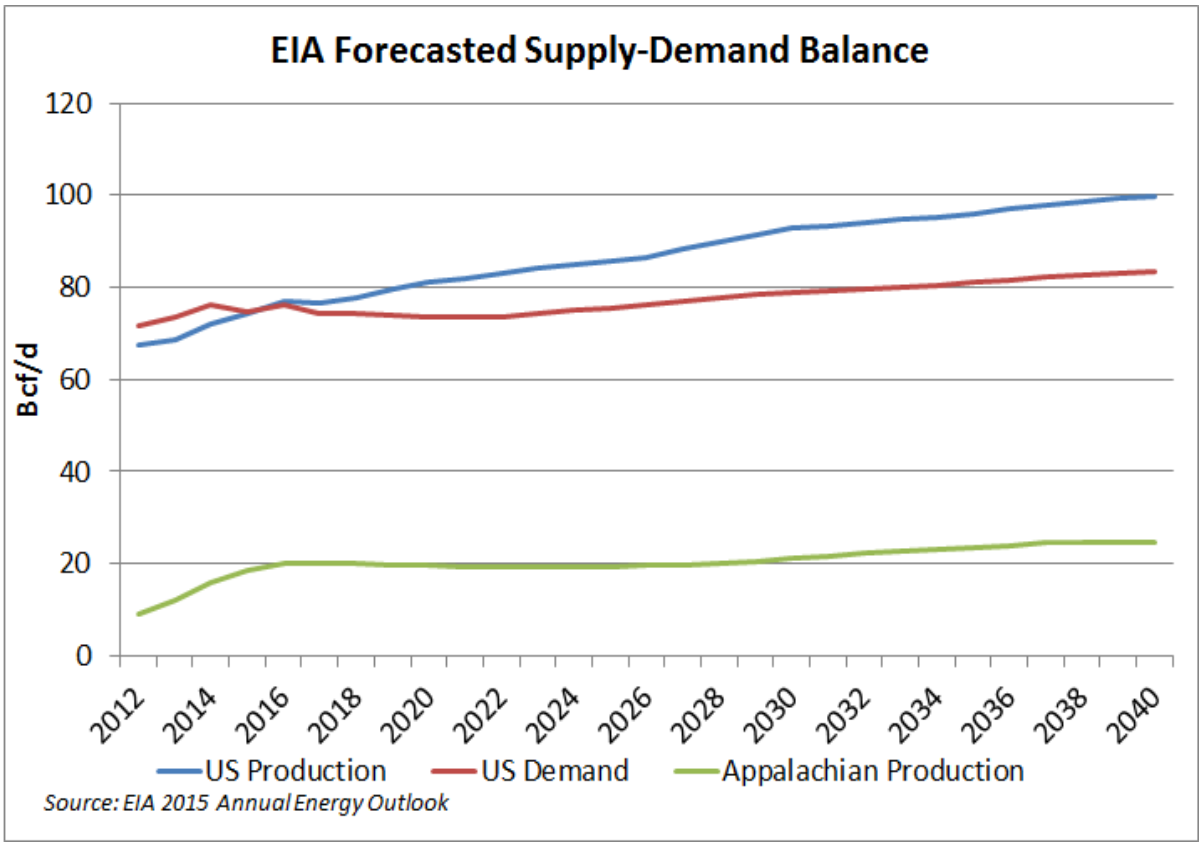
Attachment 2

Supply and Demand Analysis

1. Economic Life of Pipeline

To identify Alliance's economic life of pipeline, Alliance has used information from the EIA's 2015 Annual Energy Outlook (2015 AEO) which provides forecast data extending out to 2040. A review of implications from the EIA's forecast suggests that Alliance may have difficulty maintaining throughput above the 50% utilization level beyond the mid-point of the 2030's. The 2015 AEO forecasts Canadian export pipeline flows to the United States. Their forecast suggests that such flows will reach a low point in the mid-2030's. The reason behind the decline of Canadian imports to the U.S. is primarily the significant growth of US production relative to demand growth, as shown in the chart below.



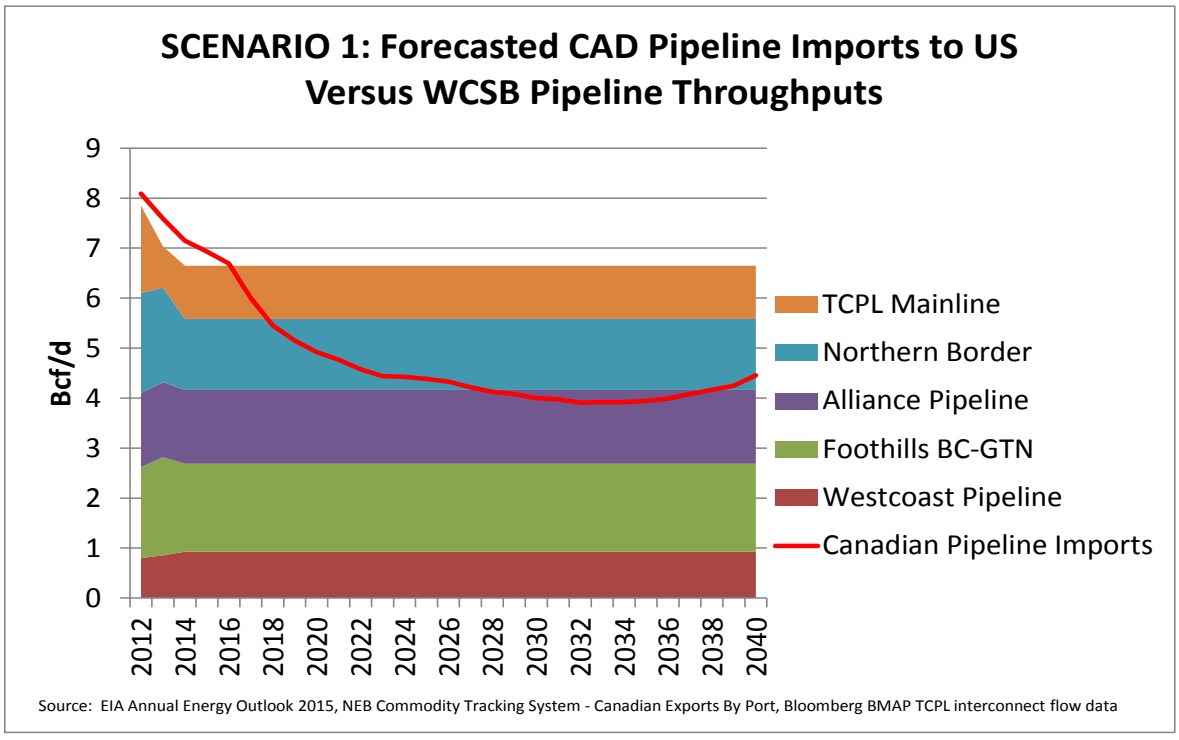
By making assumptions about the distribution of Canadian imports to the US across the five major WCSB export pipelines, a range of impacts to Alliance can be estimated. In all scenarios examined here, current export levels through Huntingdon and Kingsgate (Westcoast and GTN) are assumed to remain level as these westbound flows are, in Alliance's view, among the least likely to experience displacement from growing US supplies of the WCSB export pipelines. The primary reason is that market demand, market access and supply competition appear relatively stable for Western Canadian Sedimentary Basin (WCSB)-sourced Pacific Northwest pipeline flows.

In contrast, Canadian deliveries to US markets in the US North-East, Mid-Atlantic and Midwest regions appear vulnerable to potentially significant displacement from growing production from the Marcellus and Utica shale plays generally concentrated in the Mid-Atlantic region. The Appalachian region is expected to grow by approximately 6 Bcf/d over the period from 2015 through 2040. Alliance, Northern Border and the TransCanada Mainline are therefore assumed to have greater risk of displacement as these pipelines deliver to the markets that are among those most impacted by the production growth of the Marcellus and Utica shales.

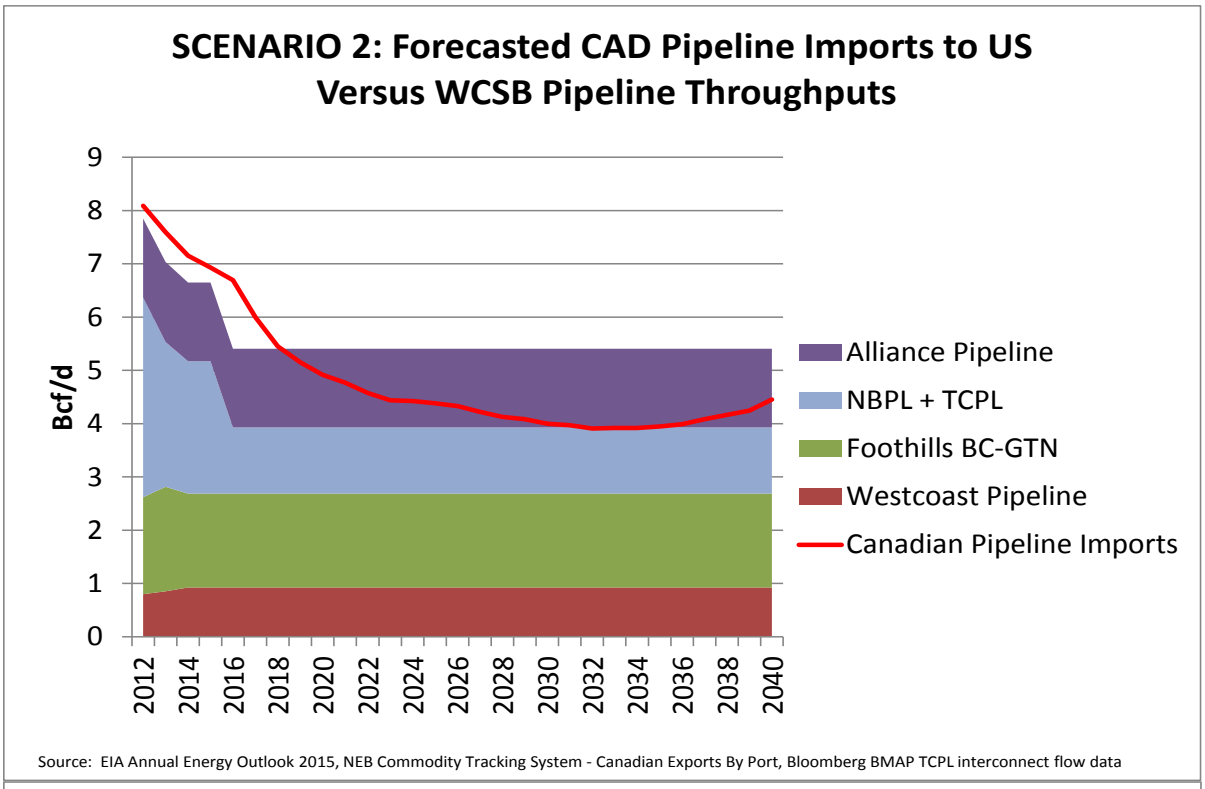
Scenario 1 shown below assumes that Northern Border and TransCanada experience the greatest risk of displacement and consequently deliver no Canadian volumes to the US by the mid-2030's. Under this assumption, Alliance flows are impacted minimally and there is no significant risk to the continued economic operation of the pipeline.

Scenario 2 assumes that Northern Border and TransCanada Mainline combined flows of WCSB volumes are reduced to 50% of 2014 levels. With this assumption, WCSB volumes available to move on Alliance Pipeline fall to virtually nothing by the mid-2030's.

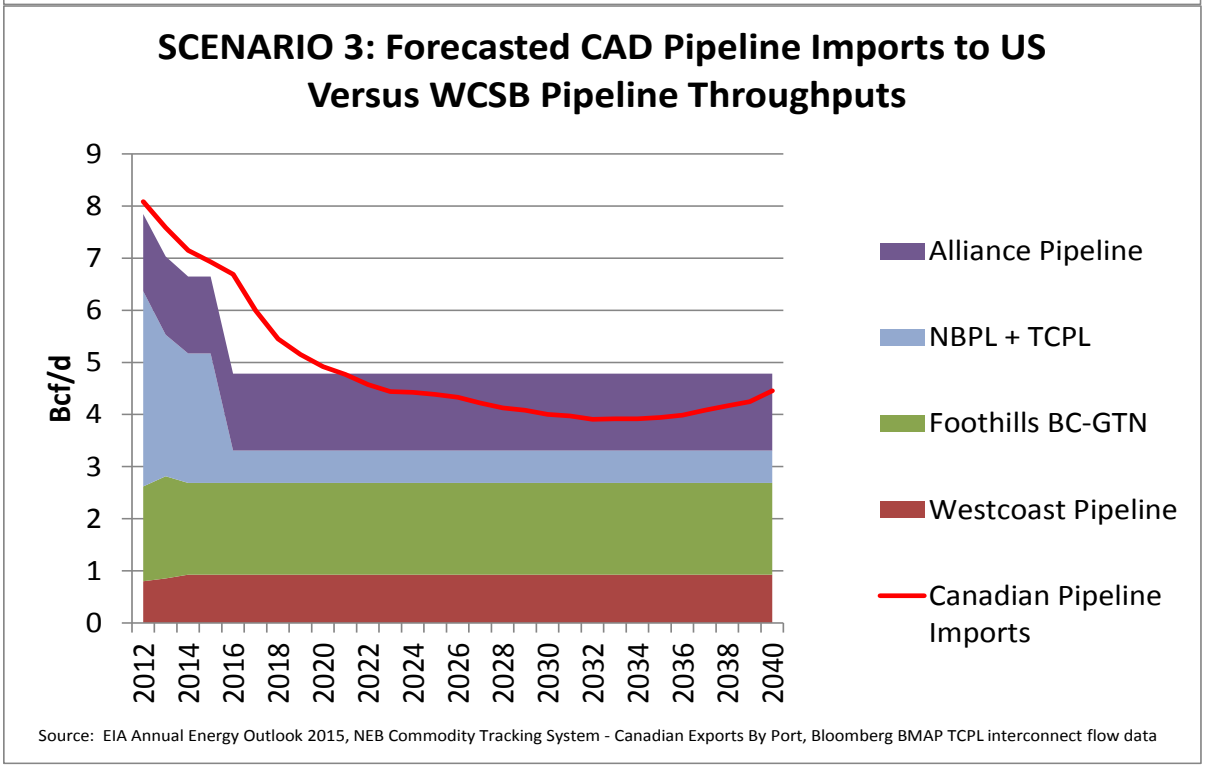
The most likely impact to Alliance can potentially be determined by looking to the average of these two "book-end" scenarios. In this average scenario (labelled Scenario 3), Alliance would potentially lose over half of its throughput for a sustained period in the middle of the 2030's. As a result, the Gannett-Fleming determination that economic life would extend through 2034 but not further, appears a reasonable estimate.



Source: EIA Annual Energy Outlook 2015, NEB Commodity Tracking System - Canadian Exports By Port, Bloomberg BMAP TCPL interconnect flow data



Source: EIA Annual Energy Outlook 2015, NEB Commodity Tracking System - Canadian Exports By Port, Bloomberg BMAP TCPL interconnect flow data



Source: EIA Annual Energy Outlook 2015, NEB Commodity Tracking System - Canadian Exports By Port, Bloomberg BMAP TCPL interconnect flow data

To summarize these scenarios, Alliance likely faces significant economic challenges to continued existing operations if as little as 500 mmcf/d of Canadian volumes move on Northern Border or the TransCanada Mainline combined, given the total import levels

forecasted by the EIA. Alliance believes it is certainly feasible that the TransCanada Mainline and Northern Border would be able to accommodate significantly reduced flows from Canada without shutting in because these systems also are able to move significant volumes of gas from US production. For example, Northern Border has significant receipt capability from Bakken production in North Dakota and also other Rockies production from its interconnect with the 400 mmcf/d Bison Pipeline. Likewise, the TransCanada Mainline is expected to receive significant volumes of Marcellus and Utica production from its infrastructure in Southern Ontario and Quebec, which help to maintain revenue and throughput for the system. These factors support the credibility of a scenario where displacement of Canadian volumes is not an "all or nothing" scenario for these two pipeline systems. It is Alliance's view that WCSB flows of at least 500 mmcf/d on Northern Border/TransCanada Mainline is a relatively conservative assumption and is supportive of a 20-year economic life for Alliance Pipeline under the EIA's forecast assumptions.

Attachment 3

Updated Depreciation Study Results

ALLIANCE PIPELINE LIMITED PARTNERSHIP
Depreciation Rate Estimated Based on the Results of the Depreciation Study
Deemed implementation date - January 1, 2016

	Original Cost at December 31, 2015	Future Accruals	Composite Remaining Life	Calculated Annual Depreciation	Calculated Annual Accrual Rate
TRANSMISSION PLANT					
461.00 LAND RIGHTS	49,491,289.76	23,072,160.52	19.00	1,214,324.24	2.45%
462.10 COMPRESSOR STRUCTURES AND IMPROVEMENTS	9,878,660.84	4,784,718.19	17.20	278,181.29	2.82%
462.20 COMPRESSOR STRUCTURES BCX	908,547.96	464,827.01	18.00	25,823.72	2.84%
463.00 METER STATIONS AND STRUCTURES	1,426,101.54	649,406.02	16.10	40,335.78	2.83%
463.10 BLOCK VALVES	5,490,060.00	2,500,164.80	18.10	138,130.65	2.52%
465.00 MAINLINE PIPE	1,458,088,608.49	665,532,197.89	18.90	35,213,343.80	2.42%
465.10 LINEPACK GAS	24,167,097.90	11,363,338.97	19.00	598,070.47	2.47%
466.00 COMPRESSOR	380,301,187.18	188,173,956.88	15.90	11,834,840.06	3.11%
466.10 COMPRESSOR BCX	30,116,988.80	15,416,161.51	15.70	981,921.12	3.26%
467.00 METER STATION	53,005,902.07	24,829,896.74	16.00	1,551,868.55	2.93%
468.00 SCADA AND COMMUNICATIONS	16,086,640.42	7,330,155.44	1.90	3,857,976.55	23.98%
469.10 LATERAL PIPE	267,874,556.21	121,997,845.69	17.60	6,931,695.78	2.59%
469.20 MISCELLANEOUS	50,283.92	24,766.05	10.70	2,314.58	4.60%
TOTAL TRANSMISSION PLANT	**2,296,885,925.09**	**1,066,139,595.71**		**62,668,826.58**	**2.73%**
OTHER ACCOUNTS					
AFUDC	299,053,883.68	136,161,033.59	18.00	7,564,501.87	2.53%
AFUDC BCX	574,946.19	294,302.78	18.00	16,350.15	2.84%
CAPITALIZED OVERHEAD	150,410,527.60	68,540,835.95	18.00	3,807,824.22	2.53%
CAPITAL SPARES	8,756,512.92	5,257,749.38	18.00	292,097.19	3.34%
TOTAL OTHER ACCOUNTS	**458,795,870.39**	**210,253,921.70**		**11,680,773.43**	**2.55%**
TOTAL PLANT	**2,755,681,795.48**	**1,276,393,517.41**		**74,349,600.01**	**2.70%**

Attachment 3

National Energy Board
Office national de l'énergie

File OF-Tolls-Group1-A159-2016-01 01
13 May 2016

Mr. Brian Troicuk
Director, Regulatory Affairs
Alliance Pipeline Ltd.
800, 605 – 5 Avenue SW
Calgary, AB T2P 3H5
Facsimile 403-233-0735

Dear Mr. Troicuk

RH-002-2014
Alliance Pipeline Ltd. as General Partner of the Alliance Pipeline Limited Partnership (Alliance) Depreciation Study Filing and Reserve Account Termination Application (Application)

The National Energy Board (Board) has examined Alliance's Application dated 4 March 2016 and filed in accordance with Condition 14 of Board Order TG-012-2015 and Board directives contained within the RH-002-2014 Reasons for Decision.

In the Application, Alliance requested a Board Order pursuant to Part IV of the *National Energy Board Act* approving its attached depreciation study and the associated composite depreciation rate of 2.70%, as well as the termination of its reserve account.

The Board has reviewed Alliance's depreciation rates and depreciation study. The Board finds Alliance's depreciation rates to be reasonable at this time and approves them as filed. The Board expects Alliance to periodically review the factors considered in the depreciation study and to file with the Board, for approval, an updated depreciation study and depreciation rates should there be any material changes to them.

The Board also approves the termination of Alliance's reserve account. The attached Order TG-005-2016 contains the details of the approval of Alliance's Application.

The Board directs Alliance to serve a copy of this letter on the Alliance system shippers, parties to RH-002-2014 and its interested parties.

Yours truly,

Original signed by L. George for

Sheri Young
Secretary of the Board

Attachment

National Energy Board | Office national de l'énergie

ORDER TG-005-2016

IN THE MATTER OF the *National Energy Board Act* (Act) and the regulations made thereunder;

AND IN THE MATTER OF an application made by Alliance Pipeline Ltd. as General Partner of the Alliance Pipeline Limited Partnership (Alliance), dated 4 March 2016, for approval of its depreciation study and the associated composite depreciation rate, as well as the termination of its reserve account pursuant to Part IV of the Act filed with the National Energy Board (Board) under File OF-Tolls-Group1-A159-2016-01 01.

BEFORE the Board on 10 May 2016.

WHEREAS the Board directed Alliance in its RH-002-2014 Reasons for Decision to make a compliance filing that provides a schedule of the baseline level of distributions assumed in the New Services Offering Application (Compliance Filing);

AND WHEREAS the Board directed in its RH-002-2014 Reasons for Decision that any amounts in excess of the baseline distributions set out in the compliance filing must be held by Alliance in a reserve account;

AND WHEREAS the Board directed in its RH-002-2014 Reasons for Decision that prior to making any distributions from this reserve account, Alliance must file, for approval, a depreciation study to support its proposed depreciation rate (Depreciation Study);

AND WHEREAS on 7 October 2015, Alliance filed the Compliance Filing;

AND WHEREAS on 4 March 2016, Alliance filed an application requesting a Board Order pursuant to Part IV of the Act approving the Depreciation Study and the associated composite depreciation rate of 2.70%, as well as the termination of its reserve account (Application);

AND WHEREAS no party has opposed the Application;

…/2

AND WHEREAS the Board has determined that the Depreciation Study and resultant rates are reasonable at this time;

THEREFORE, IT IS ORDERED, pursuant to Part IV of the Act that:

1. Alliance's Depreciation Study is approved as filed;
2. Alliance's composite depreciation rate of 2.70% is approved as filed; and
3. Alliance's request to terminate its reserve account is approved.

NATIONAL ENERGY BOARD

Original signed by L. George for

Sheri Young
Secretary of the Board

Attachment 4

20200824-5217 FERC PDF (Unofficial) 8/24/2020 4:02:30 PM

CBL
CALDWELL BOUDREAUX LEFLER PLLC

Deborah R. Repman drepman@cblpipelinelaw.com
Tel 713.357.6241 Fax 713.357.6775

August 24, 2020

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

OIL PIPELINE FILING

Re: Bridger Pipeline LLC—Tariff Filing

Dear Secretary Bose:

Pursuant to Part 347 of the Commission's regulations, Bridger Pipeline LLC ("Bridger") is requesting approval to use the attached depreciation rates so that depreciation of its pipeline assets is reflective of the remaining life of the pipeline system. Bridger is requesting approval of these rates as of January 1, 2020.

The attached report contains privileged information subject to Section 15(13) of the Interstate Commerce Act and that also constitutes confidential business information, the release of which could be harmful to Bridger and/or its shippers. Accordingly, pursuant to 18 C.F.R. § 388.112, Bridger requests privileged treatment for certain information supporting this filing. As required by 18 C.F.R. § 388.112(b), Bridger has identified on each page of the attachment the data for which privileged treatment is sought and has marked each page of the attachment accordingly. Bridger is also filing herewith a public version from which the privileged information has been removed.

I hereby certify that copies of this filing have been sent on or before this date, by means of transmission agreed upon, to all subscribers on the Bridger subscriber list.

Should you have any questions, please contact me by telephone at 713.357.6241 or by email communication at drepman@cblpipelinelaw.com.

Respectfully submitted,

/s/ Deborah R. Repman
Deborah R. Repman
Caldwell Boudreaux Lefler PLLC

Counsel for Bridger Pipeline LLC

20200824-5217 FERC PDF (Unofficial) 8/24/2020 4:02:30 PM

Bridger Pipeline LLC

Information Supporting
Proposed Oil Pipeline Depreciation
Rates

Submitted August 2020

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Average Remaining Life	§347.1 (e) (4)	5
System Maps	§347.1 (e) (5) (i)	6
Operations Summary	§347.1 (e) (5) (ii)	6
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Attachment C—System Maps 13

General Principles Summary §347.1 (e) (1)

A brief summary relating to the general principles on which the proposed depreciation rates are based (e.g., why the economic life of the pipeline section is less than the physical life).

Bridger Pipeline LLC ("Bridger") is requesting approval to use the attached depreciation rates so that depreciation of its pipeline assets for the foreseeable future is reflective of the current remaining life of its pipeline system. For long-lived assets, remaining life was determined based on economic factors, as discussed in response to §347.1(e) (4).

Pipeline Overview §347.1 (e) (2)

An explanation of the organization, ownership, and operation of the pipeline.

Bridger is a limited liability company that was formed in 2003 and is owned by the True family. Bridger gathers and transports crude oil in the Williston Basin of western North Dakota and eastern Montana, and the Powder River Basin of Wyoming. Maps of Bridger's pipelines are included in Attachment C.

Proposed Depreciation Rates §347.1 (e) (3)

A table of the proposed depreciation rates by account.

Bridger's proposed depreciation rates are listed in the following table. Bridger requests to use these rates as of January 1, 2020. Please see Attachment A for development of the proposed depreciation rates.

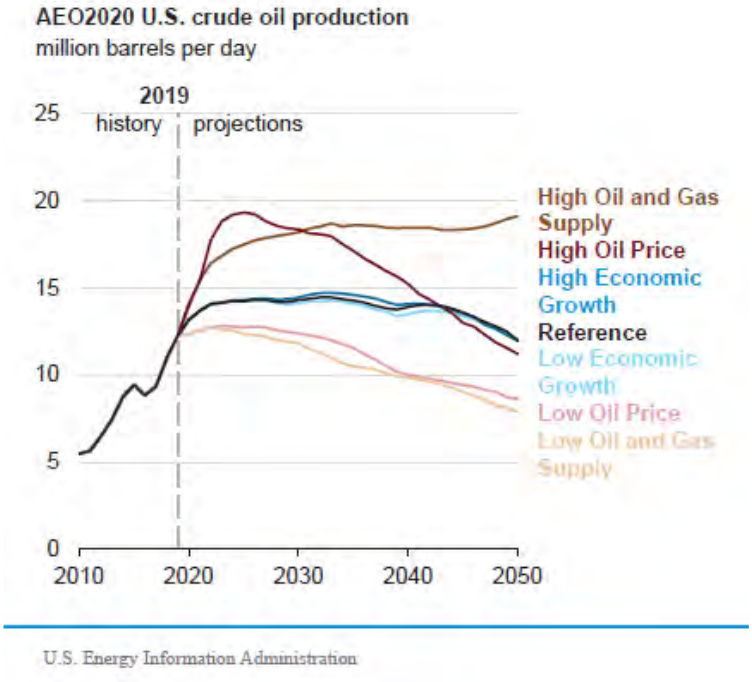
FERC Account	Description	Proposed Depreciation Rates
102	Right of Way	2.79%
103	Line Pipe	2.66%
104	Line Pipe Fittings	2.32%
105	Pipeline Construction	2.55%
106	Buildings	2.64%
108	Pumping Equipment	2.75%
110	Other Station Equipment	2.68%
111	Oil Tanks	2.71%
112	Delivery Facilities	0.97%
113	Communication Systems	13.17%
114	Office Furniture and Equipment	14.29%
115	Vehicles	7.35%
115.1	Other Work Equipment	0.72%
116	Other Property	2.73%
152	Right of Way	2.11%
153	Line Pipe	2.53%
154	Line Pipe Fittings	2.74%
155	Pipeline Construction	2.74%
156	Buildings	2.45%
158	Pumping Equipment	2.71%
160	Other Station Equipment	2.39%
161	Oil Tanks	2.35%
162	Delivery Facilities	3.33%
163	Communication Systems	11.62%
164	Office Furniture and Equipment	14.29%
165	Vehicles and Other Work Equipment	20.00%
166	Other Property	2.44%

Average Remaining Life §347.1 (e) (4)

An explanation of the average remaining life on a physical basis and on an economic basis.

For the majority of investment, remaining depreciable life was determined based on an assessment of economic considerations, as Bridger expects that the overall life of its pipeline system will be determined by economic factors instead of physical factors. When the demand for services of Bridger's facilities becomes insufficient to economically justify their continued operation, they will be retired regardless of their physical capabilities. There are a number of uncertainties which may impact the economic life of Bridger. For example, changes in technology, governmental policies regarding energy, competing modes of transportation, and supply and demand of and for crude are some of the uncertainties that face Bridger. Such forces will likely cause Bridger to become economically obsolete prior to the end of the physical life of the long-lived pipeline assets.

The following chart presents the forecast of U.S. crude oil production through 2050 by the U.S. Energy Information Administration ("EIA"). As is clear, there is considerable uncertainty when attempting to forecast production (i.e., supply) years into the future.



Moreover, Bridger's supply of crude oil is limited to the Williston Basin of western North Dakota and eastern Montana, and the Powder River Basin of Wyoming. Considering the number of uncertainties that may impact the economic life of its pipeline system, Bridger believes that it is reasonable and appropriate to set the average remaining life for its long-lived assets at 30 years.

System Maps §347.1 (e) (5) (i)

Up-to-date engineering maps of the pipeline including the location of all gathering facilities, trunkline facilities, terminals, interconnections with other pipeline systems, and interconnections with refineries/plants. Maps must indicate the direction of flow.

Please see Attachment C.

Operations Summary §347.1 (e) (5) (ii)

A brief description of the carrier's operations and an estimate of any major near-term additions or retirements including the estimated costs, location, reason, and probable year of transaction.

For a description of Bridger's operations, please refer to information provided in response to §347.1 (e) (2). Bridger does expect to place approximately $200 million of property in service in 2020 or 2021 in Wyoming. Once the new property is placed in service, Bridger will evaluate the reasonableness of its depreciation rates, and if any depreciation rates need to be updated, will submit a new depreciation study to the Commission.

Current Depreciations Rates §347.1 (e) (5) (iii)

The present depreciation rates being used by account.

Bridger's present depreciation rates are set forth in the following table.

FERC Account	Description	Existing Depreciation Rates
102	Right of Way	4.00%
103	Line Pipe	3.80%
104	Line Pipe Fittings	4.35%
105	Pipeline Construction	4.00%
106	Buildings	3.00%
108	Pumping Equipment	4.00%
110	Other Station Equipment	4.00%
111	Oil Tanks	4.00%
112	Delivery Facilities	4.40%
113	Communication Systems	1.15%
115	Vehicles	20.05%
115.1	Other Work Equipment	4.00%
116	Other Property	2.30%
152	Right of Way	2.86%
153	Line Pipe	2.71%
154	Line Pipe Fittings	3.20%
155	Pipeline Construction	2.86%
156	Buildings	3.35%
158	Pumping Equipment	3.25%
160	Other Station Equipment	4.30%
161	Oil Tanks	3.15%
163	Communication Systems	1.45%
166	Other Property	4.32%

Volume Information §347.1 (e) (5) (iv) and (vi)

For the most current year available and for the two prior years, a breakdown of the throughput received with source at each receipt point and throughput delivered at each delivery point. A list of shipments and their associated receipt points, delivery points, and volumes by type of product for the most current year.

This information is confidential in accordance with section 15(13) of the Interstate Commerce Act and is accordingly not included in the public version of this document.

Capacity Information §347.1 (e) (5) (v)

The daily average capacity (in barrels per day) and the actual average capacity (in barrels per day) for the most current year, by line section.

Bridger's capacity is as follows:

- Bridger WY System as a whole = 15,000 bpd
- Four Bears System:
  - Hwy 200 Station to Skunk Hill Station = 160,000 bpd
  - Skunk Hill Station to Sandstone Station = 140,000 bpd
- Poplar System:
  - Fisher Station to Baker Station = 45,000 bpd
- Stanley Parshall System as a whole = 50,000 bpd

Plant and Reserve Balances §347.1 (e) (5) (vii)

For each primary carrier account, the latest month's book balances for gross plant and for accumulated reserve for depreciation.

Set forth in the following table are Bridger's carrier property in service and accrued depreciation balances as of December 31, 2019**.**

FERC Account	Description	Gross Property (a)	Accrued Depreciation (b)
101	Land	$267,575	$0
102	Right of Way	$17,551,629	$2,882,784
103	Line Pipe	$78,280,903	$15,916,999
104	Line Pipe Fittings	$15,157,287	$4,620,326
105	Pipeline Construction	$137,337,353	$32,167,846
106	Buildings	$173,920	$36,413
108	Pumping Equipment	$25,941,215	$4,529,784
110	Other Station Equipment	$26,341,710	$5,188,935
111	Oil Tanks	$13,624,029	$2,567,847
112	Delivery Facilities	$100,120	$70,849
113	Communication Systems	$142,219	$11,135
114	Office Furniture and Equipment	$0	$0
115	Vehicles	$4,760,056	$3,010,146
115.1	Other Work Equipment	$544,620	$446,158
116	Other Property	$84,517	$15,330
	Subtotal	$320,307,153	$71,464,552
151	Land	$677,992	$0
152	Right of Way	$8,947,853	$3,275,405
153	Line Pipe	$58,309,525	$13,992,726
154	Line Pipe Fittings	$3,494,593	$624,712
155	Pipeline Construction	$93,363,010	$16,722,986
156	Buildings	$1,933,447	$513,109
158	Pumping Equipment	$22,013,333	$4,101,732
160	Other Station Equipment	$34,560,005	$9,792,222
161	Oil Tanks	$9,970,011	$2,949,952
162	Delivery Facilities	$0	$0
163	Communication Systems	$188,448	$35,228
164	Office Furniture and Equipment	$0	$0
165	Vehicles and Other Work Equipment	$0	$0
166	Other Property	$408,421	$109,413
	Subtotal	$233,866,638	$52,117,485
	Grand Total	$554,173,791	$123,582,037

Remaining Life Estimate §347.1 (e) (5) (viii)

An estimate of the remaining life of the system including the basis for the estimate.

For an estimate of remaining life of the system, please refer to information provided in response to §347.1(e)(4).

List of Crude Oil Fields §347.1 (e) (5) (ix)

For crude oil, a list of the fields or areas from which crude oil is obtained.

Bridger gathers and transports crude oil in the Williston Basin of western North Dakota and eastern Montana, and the Powder River Basin of Wyoming.

Service Life Data Form §347.1 (e) (5) (x)

If the proposed depreciation rate adjustment is based on the remaining physical life of the properties, a complete, or updated, if applicable, Service Life Data Form (FERC Form No. 73) through the most current year.

As the proposed depreciation rates are based primarily on economic lives, updated Service Life Data Forms (FERC Form No. 73) are not required.

Estimated Salvage Value §347.1 (e) (5) (xi)

Estimated salvage value of properties by account.

For purpose of this depreciation study, Bridger assumed that the salvage value of the assets is offset by any removal costs associated with future retirements. Accordingly, for purposes of this filing, Bridger assumes no net salvage value. Therefore, an estimate of salvage value is not applicable.

Attachment A—Calculation of Depreciation Rates

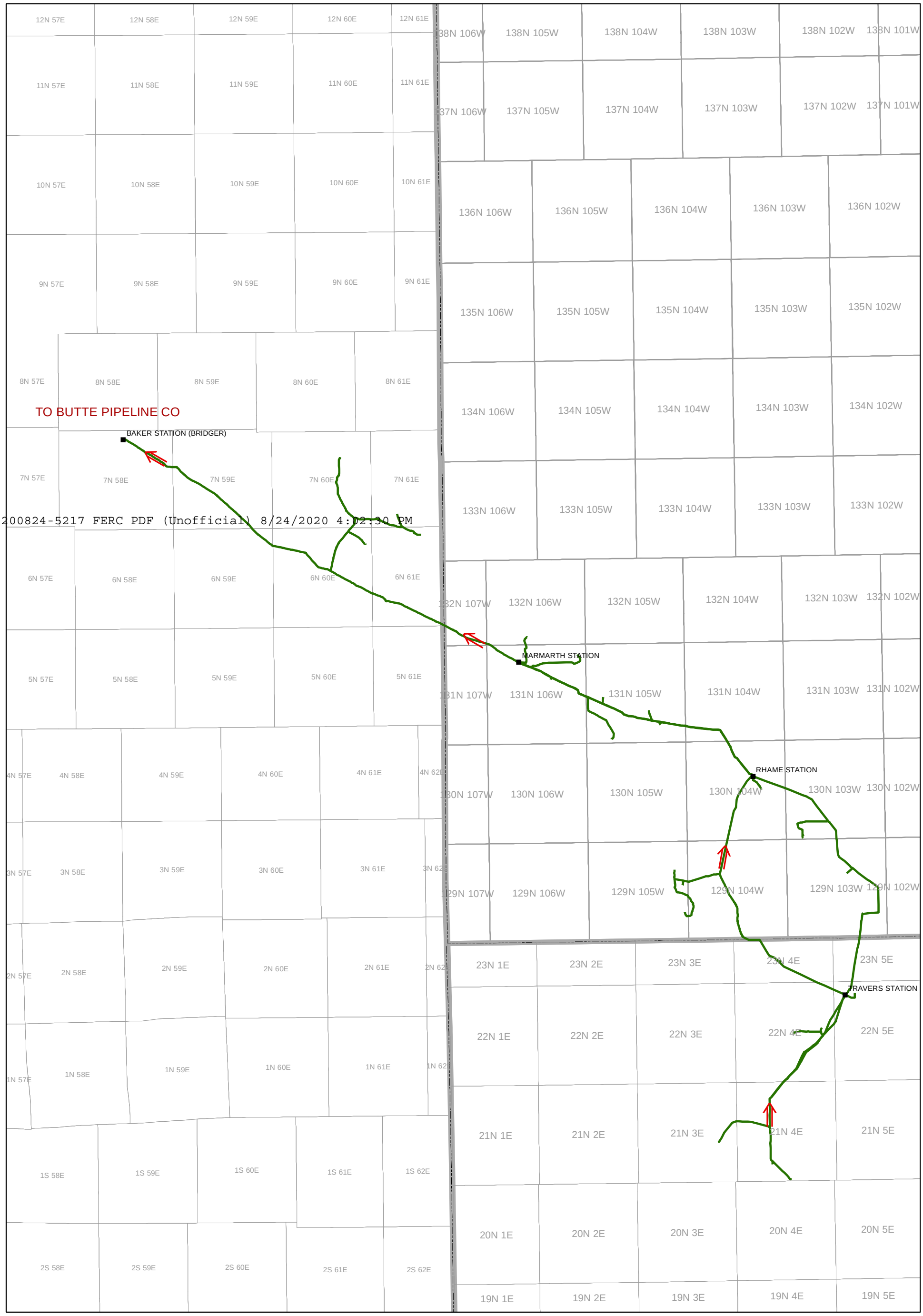
Line No.	FERC Account	Description	Gross Property (a)	Accrued Depreciation (b)	Net Book Value (c) (b) - (a)	Remaining Life (d)	Required Depreciation Exp (e) (c) / (d)	**Proposed Depreciation Rates (f) (e) / (a)**	
1	101	Land	$267,575	$0	$267,575	na			
2	102	Right of Way	$17,551,629	$2,882,784	$14,668,845	30	$488,962	**2.79%**	
3	103	Line Pipe	$78,280,903	$15,916,999	$62,363,904	30	$2,078,797	**2.66%**	
4	104	Line Pipe Fittings	$15,157,287	$4,620,326	$10,536,961	30	$351,232	**2.32%**	
5	105	Pipeline Construction	$137,337,353	$32,167,846	$105,169,507	30	$3,505,650	**2.55%**	
6	106	Buildings	$173,920	$36,413	$137,507	30	$4,584	**2.64%**	
7	108	Pumping Equipment	$25,941,215	$4,529,784	$21,411,431	30	$713,714	**2.75%**	
8	110	Other Station Equipment	$26,341,710	$5,188,935	$21,152,775	30	$705,093	**2.68%**	
9	111	Oil Tanks	$13,624,029	$2,567,847	$11,056,182	30	$368,539	**2.71%**	
10	112	Delivery Facilities	$100,120	$70,849	$29,271	30	$976	**0.97%**	
11	113	Communication Systems	$142,219	$11,135	$131,084	7	$18,726	**13.17%**	
12	114	Office Furniture and Equipment	$0	$0	$0	7	$0	**14.29%**	1/
13	115	Vehicles	$4,760,056	$3,010,146	$1,749,910	5	$349,982	**7.35%**	
14	115.1	Other Work Equipment	$544,620	$446,158	$98,462	25	$3,938	**0.72%**	
15	116	Other Property	$84,517	$15,330	$69,187	30	$2,306	**2.73%**	
16		Subtotal	$320,307,153	$71,464,552	$248,842,601				
16	151	Land	$677,992	$0	$677,992	na			
17	152	Right of Way	$8,947,853	$3,275,405	$5,672,448	30	$189,082	**2.11%**	
18	153	Line Pipe	$58,309,525	$13,992,726	$44,316,799	30	$1,477,227	**2.53%**	
19	154	Line Pipe Fittings	$3,494,593	$624,712	$2,869,881	30	$95,663	**2.74%**	
20	155	Pipeline Construction	$93,363,010	$16,722,986	$76,640,024	30	$2,554,667	**2.74%**	
21	156	Buildings	$1,933,447	$513,109	$1,420,338	30	$47,345	**2.45%**	
22	158	Pumping Equipment	$22,013,333	$4,101,732	$17,911,601	30	$597,053	**2.71%**	
23	160	Other Station Equipment	$34,560,005	$9,792,222	$24,767,783	30	$825,593	**2.39%**	
24	161	Oil Tanks	$9,970,011	$2,949,952	$7,020,059	30	$234,002	**2.35%**	
25	162	Delivery Facilities	$0	$0	$0	30	$0	**3.33%**	1/
26	163	Communication Systems	$188,448	$35,228	$153,220	7	$21,889	**11.62%**	
27	164	Office Furniture and Equipment	$0	$0	$0	7	$0	**14.29%**	1/
28	165	Vehicles and Other Work Equipment	$0	$0	$0	5	$0	**20.00%**	1/
29	166	Other Property	$408,421	$109,413	$299,008	30	$9,967	**2.44%**	
30		Subtotal	$233,866,638	$52,117,485	$181,749,153				
31									
32		Grand Total	$554,173,791	$123,582,037	$430,591,754				

1/ Currently there is no property in this account. The depreciation rate is proposed in the event such property is added.

Attachment B—Volume Information

This information is confidential in accordance with section 15(13) of the Interstate Commerce Act and is accordingly not included in the public version of this document.

Attachment C—System Maps



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BRIDGER PIPELINE LLC

BOWMAN SYSTEM

FLOW DIRECTION

STATION

GATHERING SYSTEM

BRIDGER

0 2.5 5 10 Miles

N

MAP SIZE: 11" X 17" SCALE: 1:150,000 DATE: 07/30/2020
COMPILED BY: JACK MURRAY

PUBLIC VERSION

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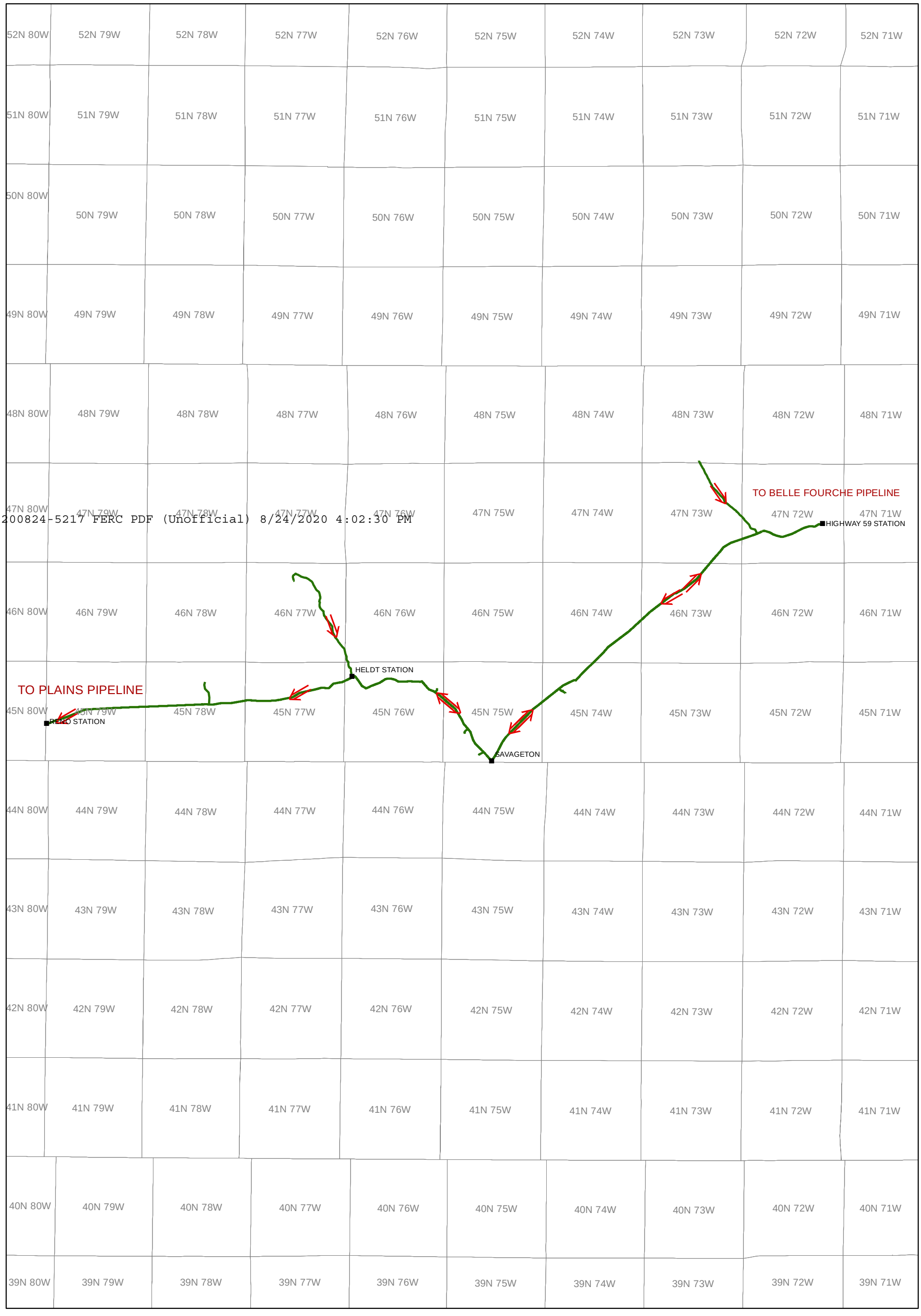


BRIDGER WY SYSTEM

BRIDGER PIPELINE LLC

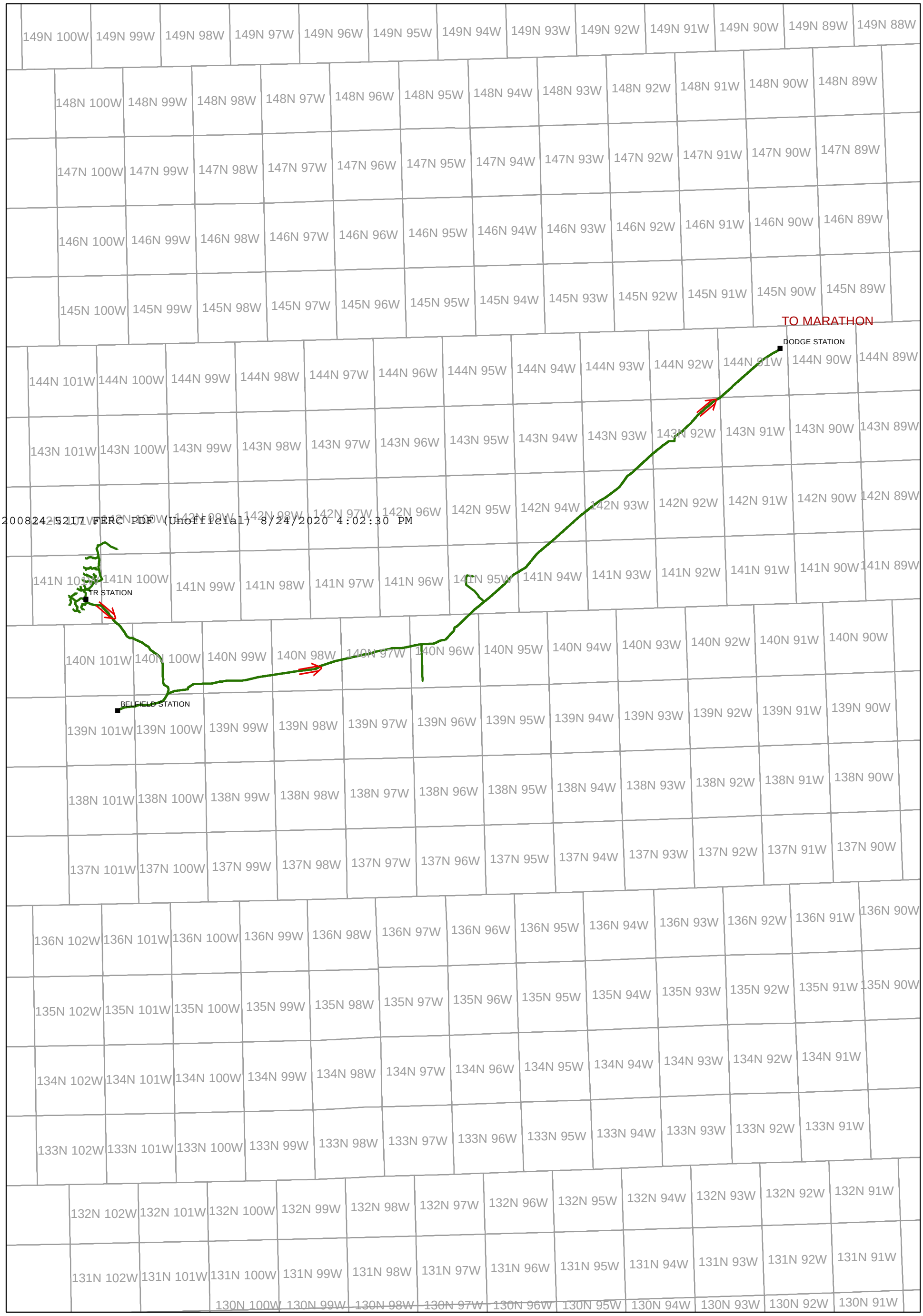
- FLOW DIRECTION
- STATION
- GATHERING SYSTEM

BRIDGER

0 2.5 5 10 Miles

N

MAP SIZE: 11" X 17" SCALE: 1:350,000 DATE: 07/30/2020
COMPILED BY: JACK MURRAY



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BRIDGER PIPELINE LLC

DODGE SYSTEM

FLOW DIRECTION

STATION

GATHERING SYSTEM

BRIDGER

0 5 10 20 Miles

N

MAP SIZE: 11" X 17" SCALE: 1:150,000 DATE: 07/30/2020
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BRENNA STATION
HIGHWAY 23 STATION / KEENE STATION
DENALI STATION
JOHNSON'S CORNER
INTERCONNECTION KERMIT TO BOWLINE
WILSON STATION
BOWLINE
INTERCONNECTION BELLE FOURCHE PIPELINE
BRAINVIK STATION
HIGHWAY 22 STATION
HIGHWAY 200 STATION
SKUNK HILL STATION
FRYBURG STATION
BOSSERMAN BOOSTER STATION
SANDSTONE
BUTTE PIPELINE CO

BRIDGER PIPELINE LLC

FLOW DIRECTION
STATIONS
TRANSMISSION PL
GATHERING SYSTEM

0 5 10 20 Miles

FOUR BEARS SYSTEM

MAP SIZE: 11" X 17" SCALE: 1:150,000 DATE: 07/30/2020
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148N 97W | 148N 96W | 148N 95W

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146N 97W | 146N 96W | 146N 95W

145N 97W | 145N 96W | 145N 95W

144N 98W | 144N 97W | 144N 96W | 144N 95W

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HIGHWAY 22 STATION

KILLDEER SYSTEM

BRIDGER PIPELINE LLC

FLOW DIRECTION

STATION

GATHERING SYSTEM

0 1 2 4 Miles

MAP SIZE: 11" X 17" SCALE: 1:150,000 DATE: 07/30/2020
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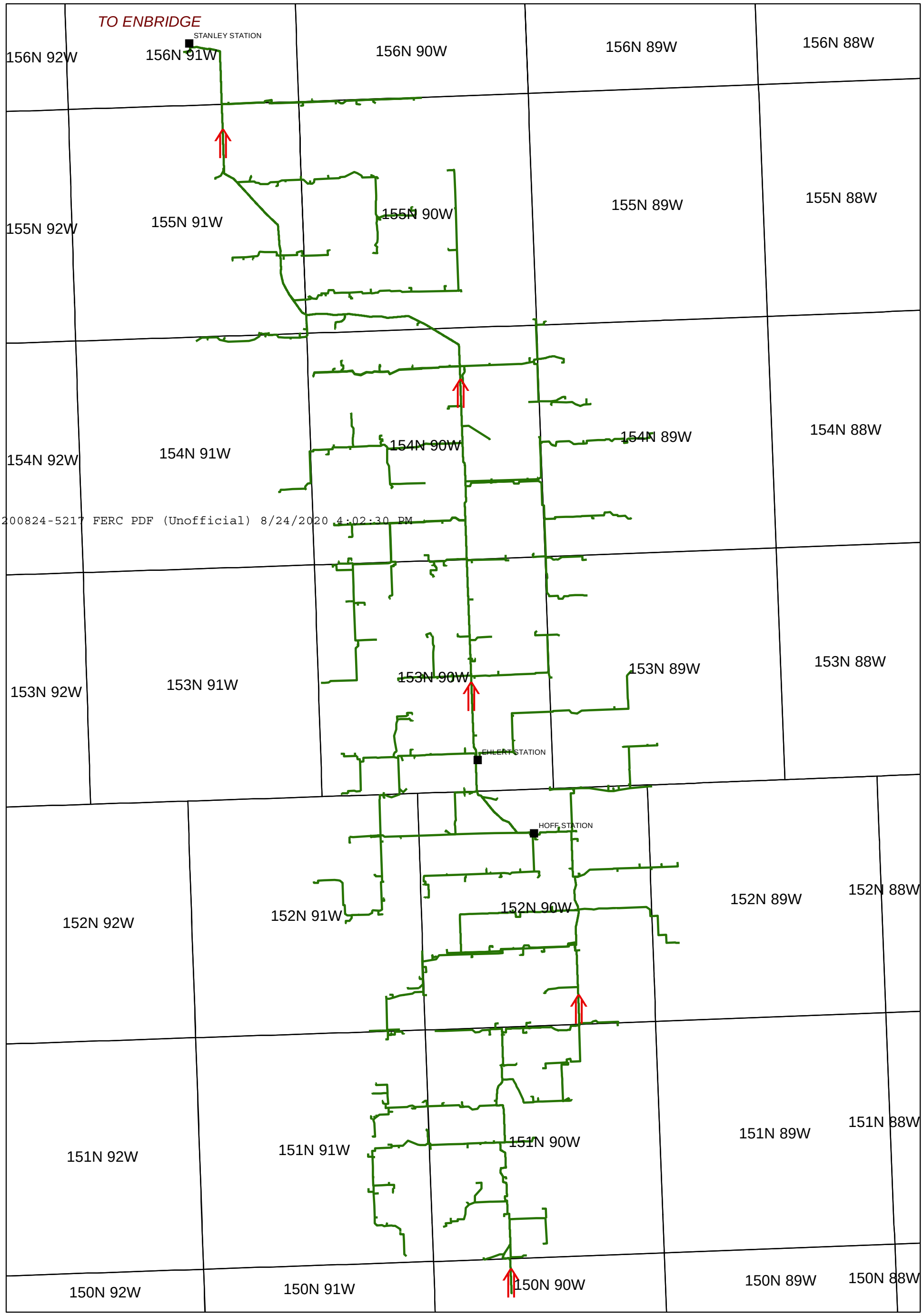

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PARSHALL GATHERING SYSTEM

BRIDGER PIPELINE LLC

FLOW DIRECTION

STATIONS

CRUDE OIL PIPELINES

0 2 4 8 Miles

MAP SIZE: 11" X 17" SCALE: 1:150,000 DATE: 07/30/2020
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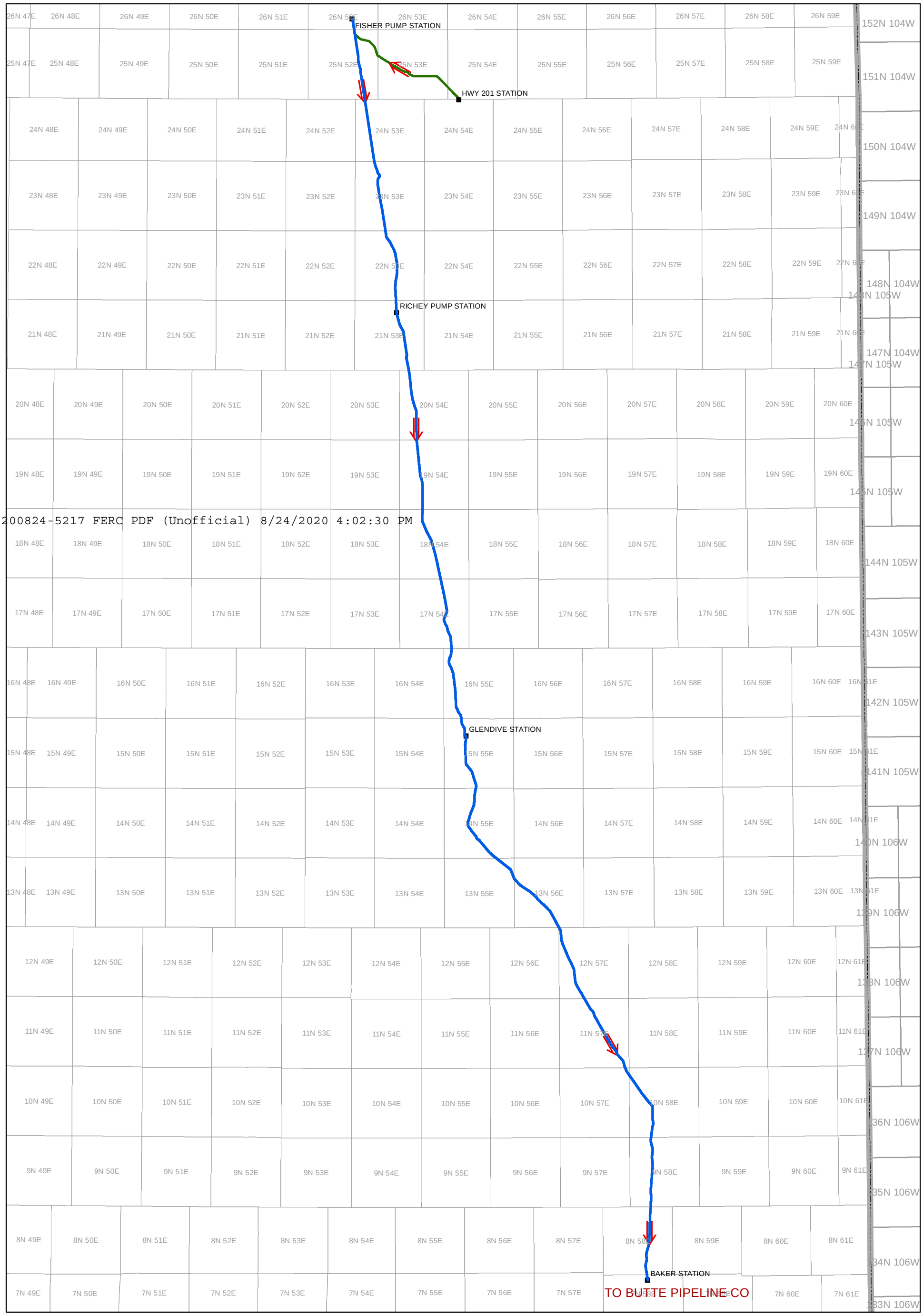

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BRIDGER PIPELINE LLC

FLOW DIRECTION

STATION

TRANSMISSION

GATHERING SYSTEM

BRIDGER

0 5 10 20 Miles

POLAR SYSTEM

N

MAP SIZE: 11" X 17" SCALE: 1:500,000 DATE: 07/30/2020
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FERC rendition of the electronically filed tariff records in Docket No. DO20-00038-000
Filing Data:
CID: C001302
Filing Title: Bridger Depreciation Study
Company Filing Identifier: 70
Type of Filing Code: 1160
Associated Filing Identifier:
Tariff Title: Bridger Pipeline LLC Tariff Database
Tariff ID: 13
Payment Confirmation:
Suspension Motion:

Tariff Record Data:

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Document Content(s)

Transmittal Letter.PDF.....1-1

Bridger Depreciation Study - Public.PDF.....2-21

FERC GENERATED TARIFF FILING.RTF.....22-22

Attachment 5

Document Accession #: 20201013-3039 Filed Date: 10/13/2020

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY MARKET REGULATION

In Reply Refer To
Letter Order Pursuant to
§ 375.307(a)(10)(iii)
Bridger Pipeline LLC
Docket No. DO20-38-000

October 13, 2020

Caldwell Boudreaux Lefler PLLC
1800 West Loop South, Suite 1680
Houston, Texas 77027

Attention: Deborah R. Repman, Counsel for Bridger Pipeline LLC

Reference: Revised Depreciation Rates

Ladies and Gentlemen:

1. On August 24, 2020, Bridger Pipeline LLC (Bridger) filed to request approval of revised depreciation rates for its crude oil pipeline system property accounts pursuant to Part 347 of the Commission's regulations.[1] Bridger requests the depreciation rates become effective January 1, 2020. Staff investigated the appropriateness of the proposed rates and recommends acceptance of the proposed depreciation rates as filed, effective January 1, 2020, as requested.

2. Bridger, a limited liability company and owned by the True family, requests approval of the proposed depreciation rates for its common crude oil pipeline system property accounts pursuant to Part 347 of the Commission's regulations. Bridger gathers and transports crude oil in the Williston Basin of western North Dakota and eastern Montana, and the Powder River Basin of Wyoming. Bridger requests the following depreciation rates, calculated using a 30-year remaining life, become effective on January 1, 2020:

[1] Subchapter P, Title 18, Code of Federal Regulations – Oil Pipeline Depreciation Studies, section 347.1.

ACCOUNT NO.	ACCOUNT NAME	DEPRECIATION RATE (%)
102	Right of way	2.79
103	Line pipe	2.66
104	Line pipe fittings	2.32
105	Pipeline construction	2.55
106	Buildings	2.64
108	Pumping equipment	2.75
110	Other station equipment	2.68
111	Oil tanks	2.71
112	Delivery facilities	0.97
113	Communication systems	13.17
114	Office furniture and equipment	14.29
115	Vehicles	7.35
115.1	Other work equipment	0.72
116	Other property	2.73
152	Right of way	2.11
153	Line pipe	2.53
154	Line pipe fittings	2.74
155	Pipeline construction	2.74
156	Buildings	2.45
158	Pumping equipment	2.71
160	Other station equipment	2.39
161	Oil tanks	2.35
162	Delivery facilities	3.33
163	Communication systems	11.62
164	Office furniture and equipment	14.29
165	Vehicles and other work equipment	20.00
166	Other property	2.44

3. Such acceptance is without prejudice to any findings or orders which have been or may hereafter be made by the Commission in any proceeding now pending or hereafter instituted by or against your company.

4. This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date this order issues pursuant to 18 C.F.R. § 385.713.

Issued by: Marsha Palazzi, Director, Division of Pipeline Regulation

Document Content(s)

DO20-38-000.DOCX.....1

Attachment 6

ENBRIDGE GAS DISTRIBUTION, INC.

SCARBOROUGH, ONTARIO

DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUAL RATES APPLICABLE TO GAS PLANT AS OF DECEMBER 31, 2010

Harrisburg, Pennsylvania *Calgary, Alberta* *Valley Forge, Pennsylvania*

Gannett Fleming

Excellence Delivered ***As Promised***

November 2, 2011

Enbridge Gas Distribution, Inc.
PO Box 650
Scarborough, ON M1K 5E3

Attention: Mr. John Jozsa, Assistant Controller
Ms. Debbie Kelly, Manager, Capital Effectiveness

Ladies and Gentlemen:

Pursuant to your request, we have conducted a depreciation study related to the gas distribution and general plant assets of Enbridge Gas Distribution (or "the Company") as of December 31, 2010. Our report presents a description of the methods used in the estimation of depreciation, the statistical analyses of service life, the analysis related to net salvage, and the summary and detailed tabulations of annual and accrued depreciation.

The calculated annual depreciation accrual rates presented in the report are applicable to plant in service as of December 31, 2010. The depreciation rates are based on the straight line remaining life method using the average service life procedure. A periodic review of the depreciation rates using the same estimates and methods is recommended.

Respectfully submitted,

GANNETT FLEMING, INC.
Valuation and Rate Division

John J. Spanos

JOHN J. SPANOS
Vice President

LARRY E. KENNEDY
Director, Canadian Services

LEK/JJS

054469

Gannett Fleming, Inc.
Valuation and Rate Division
P.O. Box 67100 • Harrisburg, PA 17106-7100 | 207 Senate Avenue • Camp Hill, PA 17011-2316
t: 717.763.7211 • f: 717.763.4590
www.gannettfleming.com www.gfvrd.com

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PART I. INTRODUCTION

ENBRIDGE GAS DISTRIBUTION, INC.

DEPRECIATION STUDY
CALCULATED ANNUAL DEPRECIATION
ACCRUAL RATES APPLICABLE
TO GAS PLANT
AS OF DECEMBER 31, 2010

PART I. INTRODUCTION

SCOPE

This report sets forth the results of the depreciation study conducted for the underground storage, distribution and general plant assets of Enbridge Gas Distribution ("Enbridge" or "the Company") as of December 31, 2010 to determine the annual depreciation accrual rates and amounts for ratemaking and financial disclosure purposes applicable to the original cost of plant as of December 31, 2010.

The depreciation accrual rates presented herein are based on generally-accepted methods and procedures for calculating depreciation. The estimated survivor curves used in this report are based on studies incorporating data through 2010.

Part I, Introduction, contains statements with respect to the scope of the report and the basis of the study. Part II, Methods Used in the Calculation of Depreciation, presents the methods used in the estimation of average service lives, survivor curves, and net salvage percentages and in the calculation of depreciation. Part III, Results of Study, presents a summary of annual depreciation, the statistical analyses of service lives and net salvage estimates, and the detailed tabulations of annual depreciation.

BASIS OF THE STUDY

Depreciation. The depreciation accrual rates and accrued depreciation were calculated using the straight line method, the remaining life basis and the average service

life group (ASL) procedure. The calculation was based on the attained ages and estimated service life and net salvage characteristics for each depreciable group of assets as of December 31, 2010.

Service Life and Net Salvage Estimates. The method of estimating service life consisted of compiling the service life history of the plant accounts and subaccounts, reducing this history to trends through the use of analytical techniques that have been generally accepted in various regulatory jurisdictions, and forecasting the trend of survivors for each depreciable group on the basis of interpretations of past trends and consideration of Company plans for the future. The combination of the historical trend and the estimated future trend yielded a complete pattern of life characteristics from which the average service life was derived. The service life estimates used in the depreciation calculation incorporated historical data compiled through December 31, 2010. Such data included plant additions, retirements, transfers and other plant activity.

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 retirement was obtained through site tours of Company facilities and interviews with Company representatives. The information gained through these tours and discussions with company representatives were also used in the development of the average service life estimates.

RECOMMENDATIONS

The calculated annual depreciation accrual rates set forth herein apply specifically to plant in service as of December 31, 2010. Continued surveillance and periodic review are normally required to maintain continued use of appropriate depreciation rates.

The depreciation rates should be reviewed periodically to reflect the changes that result from plant accounting activity. A depreciation reserve deficiency or surplus will

develop if future capital expenditures vary significantly from those anticipated in this study.

The survivor curves used in this study should be the basis for periodic recalculations. Complete depreciation studies, which reevaluate these parameters, should be performed every three to five years.

PART II. METHODS USED IN THE CALCULATION OF DEPRECIATION

PART II. METHODS USED IN THE CALCULATION OF DEPRECIATION

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 natural gas distribution 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.

The calculation of annual and accrued depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. These subjects are discussed in the sections that follow.

ESTIMATION OF SURVIVOR CURVES

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. A discussion of the general concept of survivor curves is presented. Also, the Iowa type survivor curves are reviewed.

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 and is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

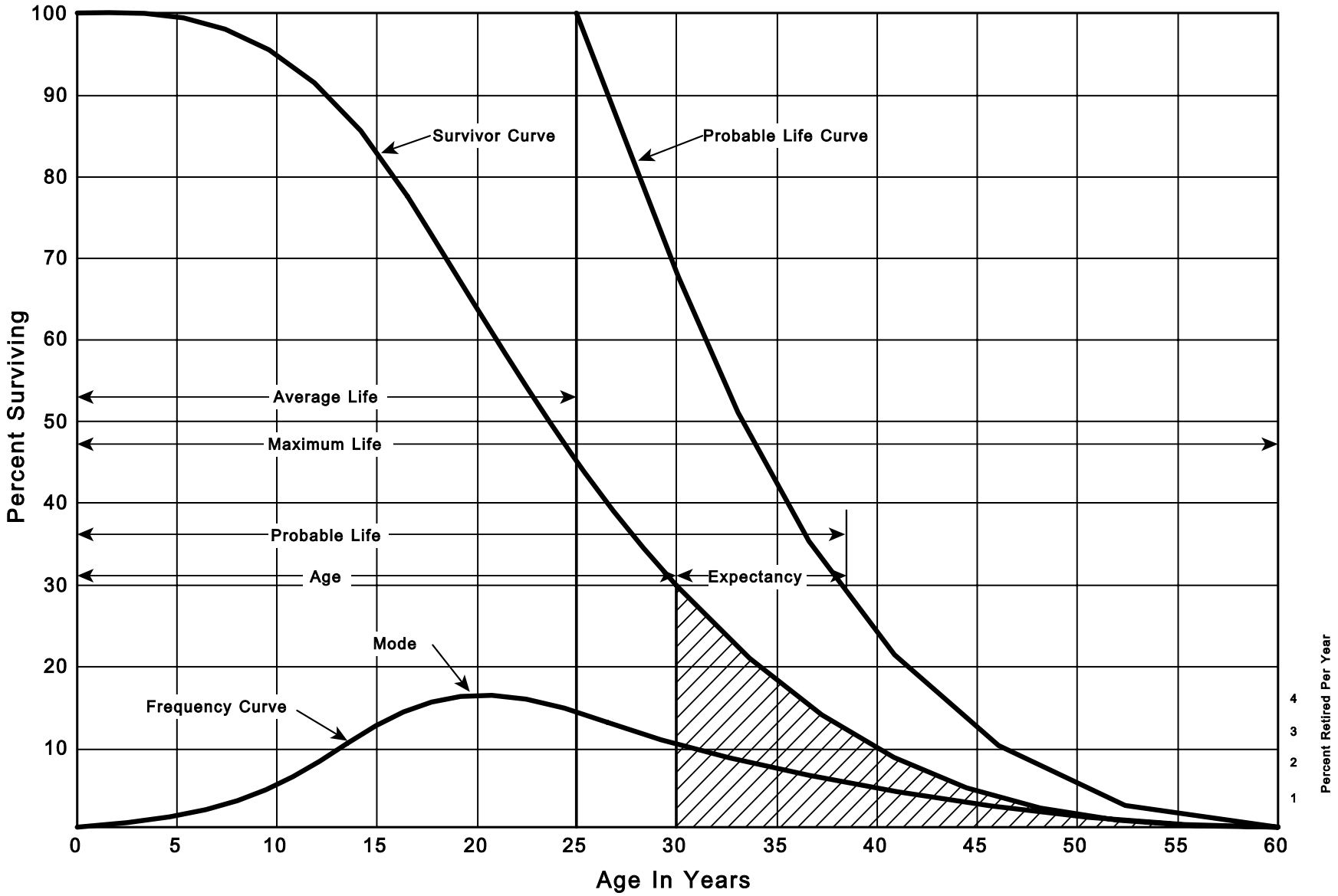

Figure 1. A Typical Survivor Curve and Derived Curves

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EB-2011-0354
Exhibit D2
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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 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.

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.[1] These curve types have also been presented in

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

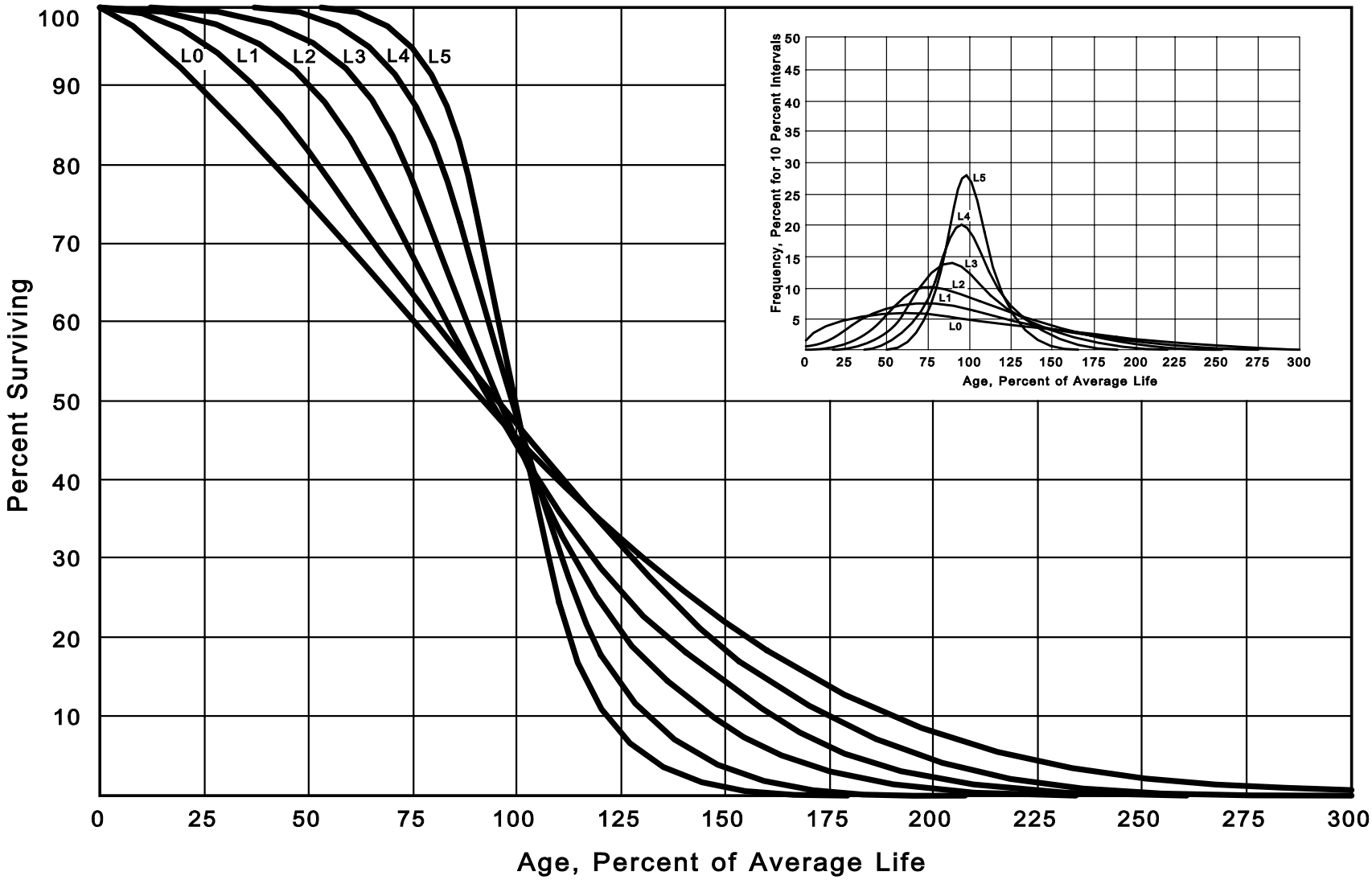

Figure 2. Left Modal or "L" Iowa Type Survivor Curves

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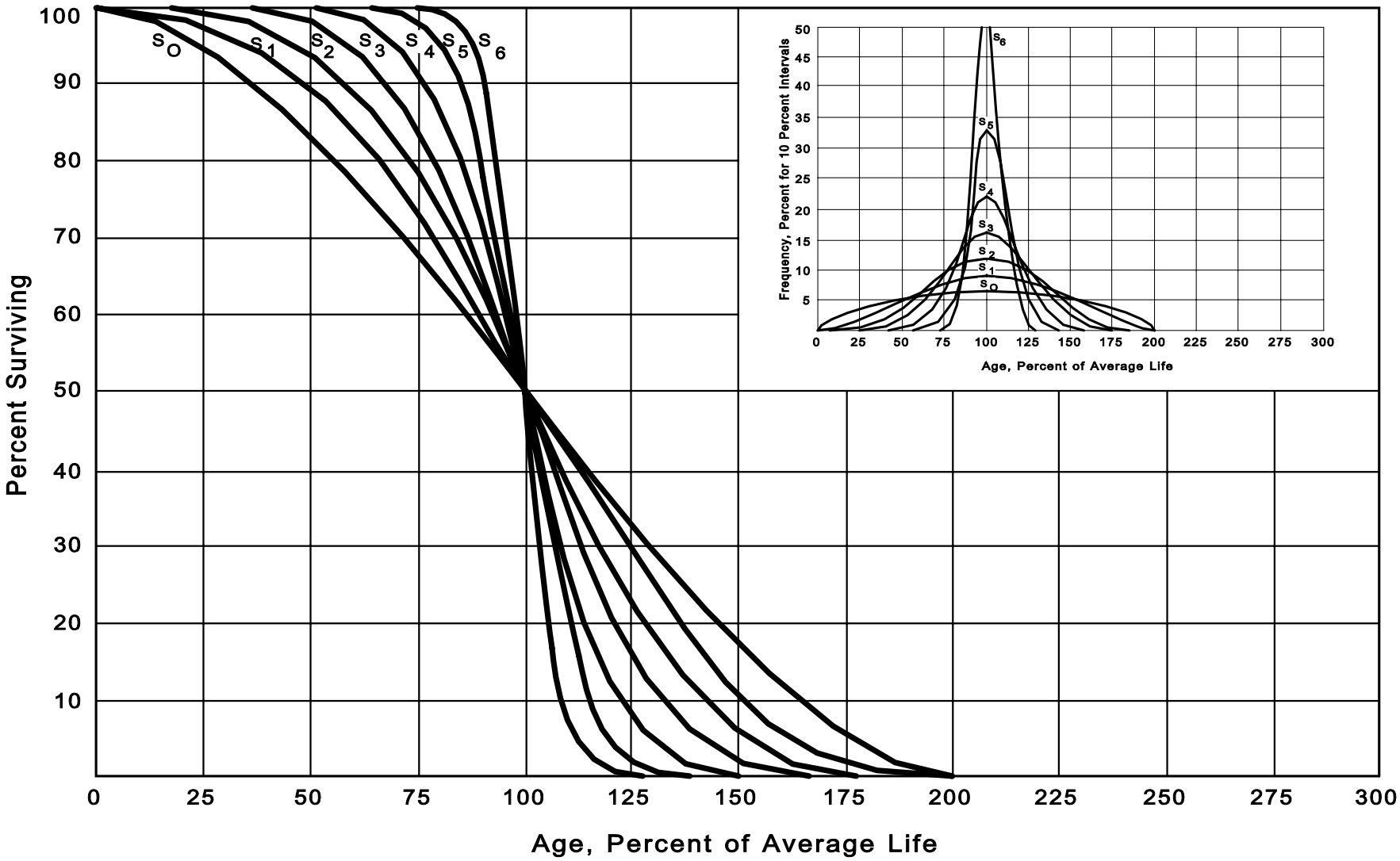

Figure 3. Symmetrical or "S" Iowa Type Survivor Curves

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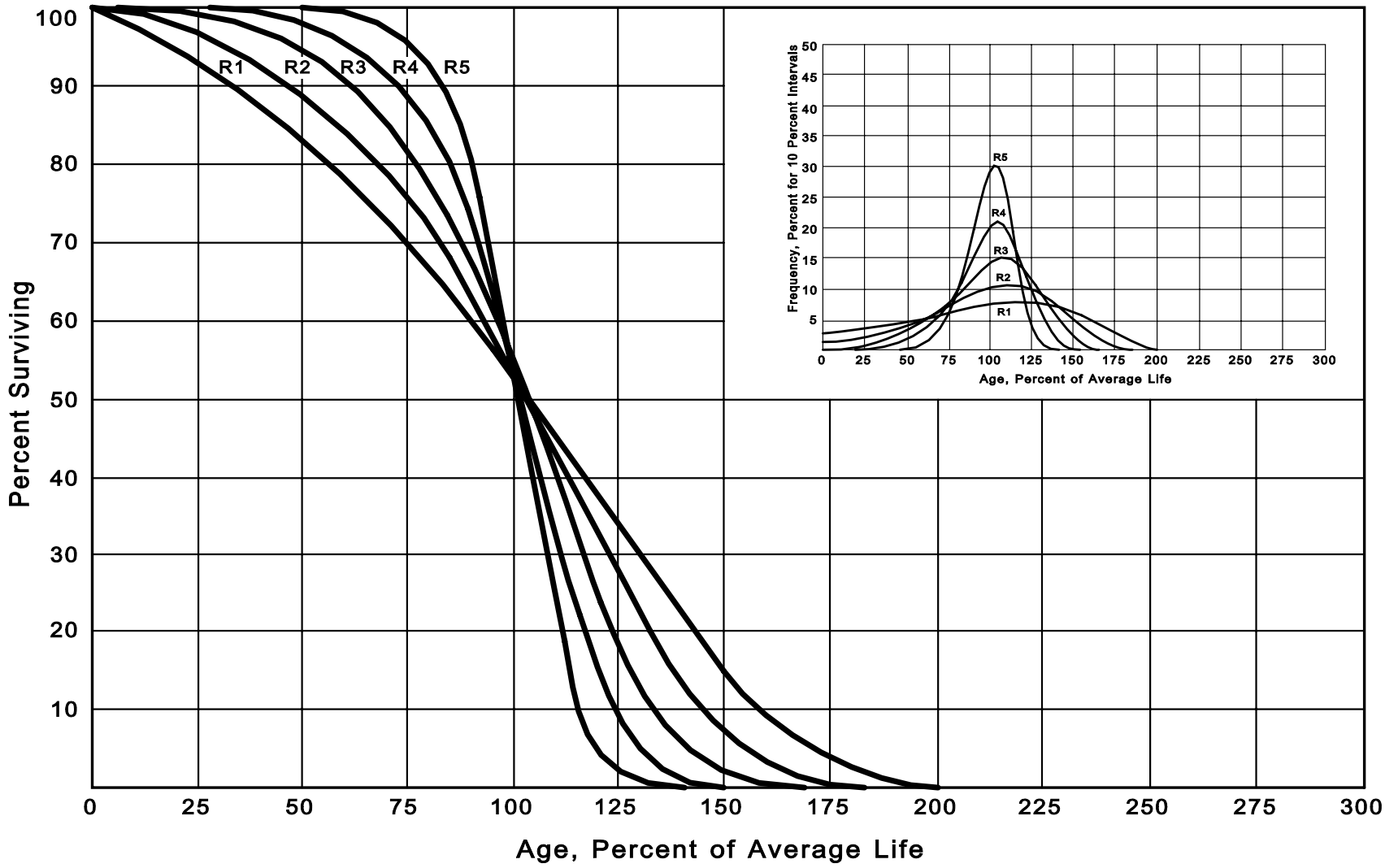

Figure 4. Right Modal or "R" Iowa Type Survivor Curves

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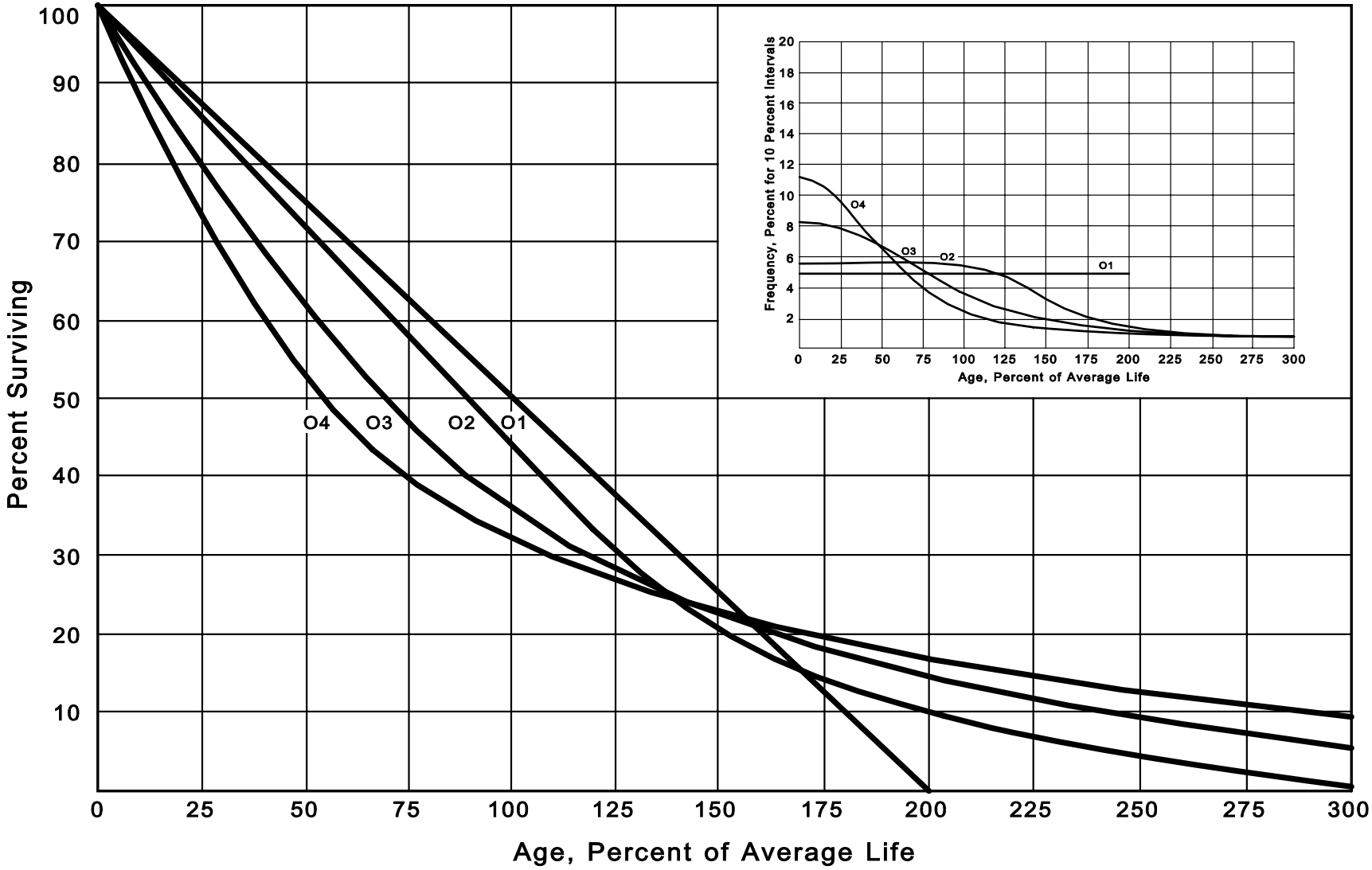

Figure 5. Origin Modal or "O" Iowa Type Survivor Curves

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subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."[2] In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis[3] 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 or for which aged accounting experience is developed by statistically aging unaged amounts 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,"[4] "Engineering Valuation and Depreciation,"[5] and "Depreciation Systems."[6]

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 beginnings of the age intervals during the same period. The period of observation is referred to as the experience band, and 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

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

[3]Couch, Frank V. B., Jr. "Classification of Type O Retirement Characteristics of Industrial Property." Unpublished M.S. thesis (Engineering Valuation). Library, Iowa State College, Ames, Iowa. 1957.

[4]Winfrey, Robley, Supra Note 1.

[5]Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 2.

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

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.

Schedules of Annual Transactions in Plant Records. The property group used to illustrate the retirement rate method is observed for the experience band 2001-2010 during which there were placements during the years 1996-2010. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Tables 1 and 2 on pages II-14 and II-15. In Table 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 1996 was retired in 2001. 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 Table 1 immediately above the stairstep line drawn on the table beginning with the 2001 retirements of 1996 installations and ending

with the 2010 retirements of the 2005 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.

In Table 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 Table 3 on page ll-16**.** The surviving plant at the beginning of each year from 2001 through 2010 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 Table 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Tables 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 2006 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

For the entire experience band 2001-2010, 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 (Table 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 Table 4 on page ll-18**,** is developed from the totals shown on the schedules of retirements and exposures, Tables 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,

TABLE 1. RETIREMENTS FOR EACH YEAR 2001-2010
SUMMARIZED BY AGE INTERVAL

Experience Band 2001-2010 — Placement Band 1996-2010

Year Placed	Retirements, Thousands of Dollars During Year										Total During Age Interval	Age Interval
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1996	10	11	12	13	14	16	23	24	25	26	26	13½-14½
1997	11	12	13	15	16	18	20	21	22	19	44	12½-13½
1998	11	12	13	14	16	17	19	21	22	18	64	11½-12½
1999	8	9	10	11	11	13	14	15	16	17	83	10½-11½
2000	9	10	11	12	13	14	16	17	19	20	93	9½-10½
2001	4	9	10	11	12	13	14	15	16	20	105	8½-9½
2002		5	11	12	13	14	15	16	18	20	113	7½-8½
2003			6	12	13	15	16	17	19	19	124	6½-7½
2004				6	13	15	16	17	19	19	131	5½-6½
2005					7	14	16	17	19	20	143	4½-5½
2006						8	18	20	22	23	146	3½-4½
2007							9	20	22	25	150	2½-3½
2008								11	23	25	151	1½-2½
2009									11	24	153	½-1½
2010										13	80	0-½
Total	53	68	86	106	128	157	196	231	273	308	1,606	

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TABLE 2. OTHER TRANSACTIONS FOR EACH YEAR 2001-2010
SUMMARIZED BY AGE INTERVAL

Experience Band 2001-2010 Placement Band 1996-2010

	Acquisitions, Transfers and Sales, Thousands of Dollars During Year											
Placed	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total During Age Interval	Age Interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1996	-	-	-	-	-	-	60[a]	-	-	-	-	13½-14½
1997	-	-	-	-	-	-	-	-	-	-	-	12½-13½
1998	-	-	-	-	-	-	-	-	-	-	-	11½-12½
1999	-	-	-	-	-	-	-	(5)[b]	-	-	60	10½-11½
2000	-	-	-	-	-	-	-	6[a]	-	-	-	9½-10½
2001		-	-	-	-	-	-	-	-	-	(5)	8½-9½
2002			-	-	-	-	-	-	-	-	-	7½-8½
2003			-	-	-	-	-	-	-	-	-	6½-7½
2004				-	-	-	-	(12)[b]	-	-	-	5½-6½
2005					-	-	-	-	22[a]	-	-	4½-5½
2006						-	-	(19)[b]	-	-	10	3½-4½
2007							-	-	-	-	-	2½-3½
2008								-	-	(102)[c]	(121)	1½-2½
2009									-	-	-	½-1½
2010											-	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.

TABLE 3. PLANT EXPOSED TO RETIREMENT
JANUARY 1 OF EACH YEAR 2001-2010
SUMMARIZED BY AGE INTERVAL

Experience Band 2001-2010

Placement Band 1996-2010

Year Placed (1)	Exposures, Thousands of Dollars — Annual Survivors at the Beginning of the Year: 2001 (2)	2002 (3)	2003 (4)	2004 (5)	2005 (6)	2006 (7)	2007 (8)	2008 (9)	2009 (10)	2010 (11)	Total at Beginning of Age Interval (12)	Age Interval (13)
1996	255	245	234	222	209	195	239	216	192	167	167	13½-14½
1997	279	268	256	243	228	212	194	174	153	131	323	12½-13½
1998	307	296	284	271	257	241	224	205	184	162	531	11½-12½
1999	338	330	321	311	300	289	276	262	242	226	823	10½-11½
2000	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½
2001	420[a]	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2002		460[a]	455	444	432	419	405	390	374	356	1,952	7½-8½
2003			510[a]	504	492	479	464	448	431	412	2,463	6½-7½
2004				580[a]	574	561	546	530	501	482	3,057	5½-6½
2005					660[a]	653	639	623	628	609	3,789	4½-5½
2006						750[a]	742	724	685	663	4,332	3½-4½
2007							850[a]	841	821	799	4,955	2½-3½
2008								960[a]	949	926	5,719	1½-2½
2009									1,080[a]	1,069	6,579	½-1½
2010										1,220[a]	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	

[a] Additions during the year.

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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 Tables 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless.

The original survivor curve is plotted from the original life table (column 6, Table 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.

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

Experience Band 2001-2010 Placement Band 1996-2010

(Exposure and Retirement Amounts are in Thousands of Dollars)

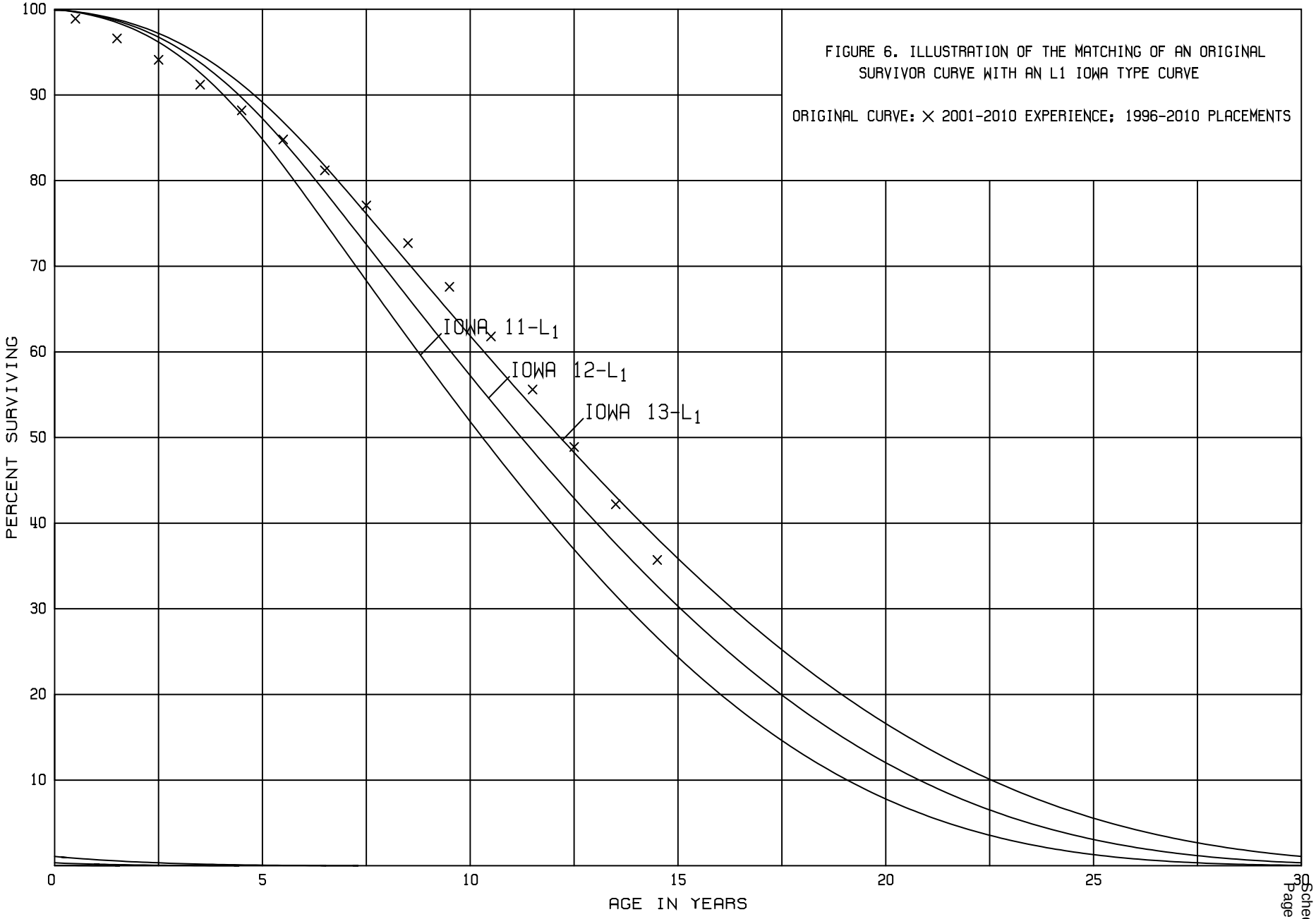
Age at Beginning of Interval (1)	Exposures at Beginning of Age Interval (2)	Retirements During Age Interval (3)	Retirement Ratio (4)	Survivor Ratio (5)	Percent Surviving at Beginning of Age Interval (6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
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	167	26	0.1557	0.8443	42.24
					35.66
Total	44,780	1,606			

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

Computed Mortality Method. The computed mortality method of life analysis as used in this study is a procedure for statistically aging annual retirements prior to being analyzed by the retirement rate method. In this procedure, an aged plant balance is developed for the year prior to and for each test year during the given term of comparison. Each given balance is aged by a simulation procedure which applies a series of successive survivor curve trials using a specified Iowa type curve. The Iowa type survivor curve specified for each account is based on judgment incorporating the results of simulated plant record analyses, knowledge of the property and the type curves estimated for the account in other gas companies. Each trial consists of constructing a specific survivor curve at one-year intervals beginning with age 1/2.



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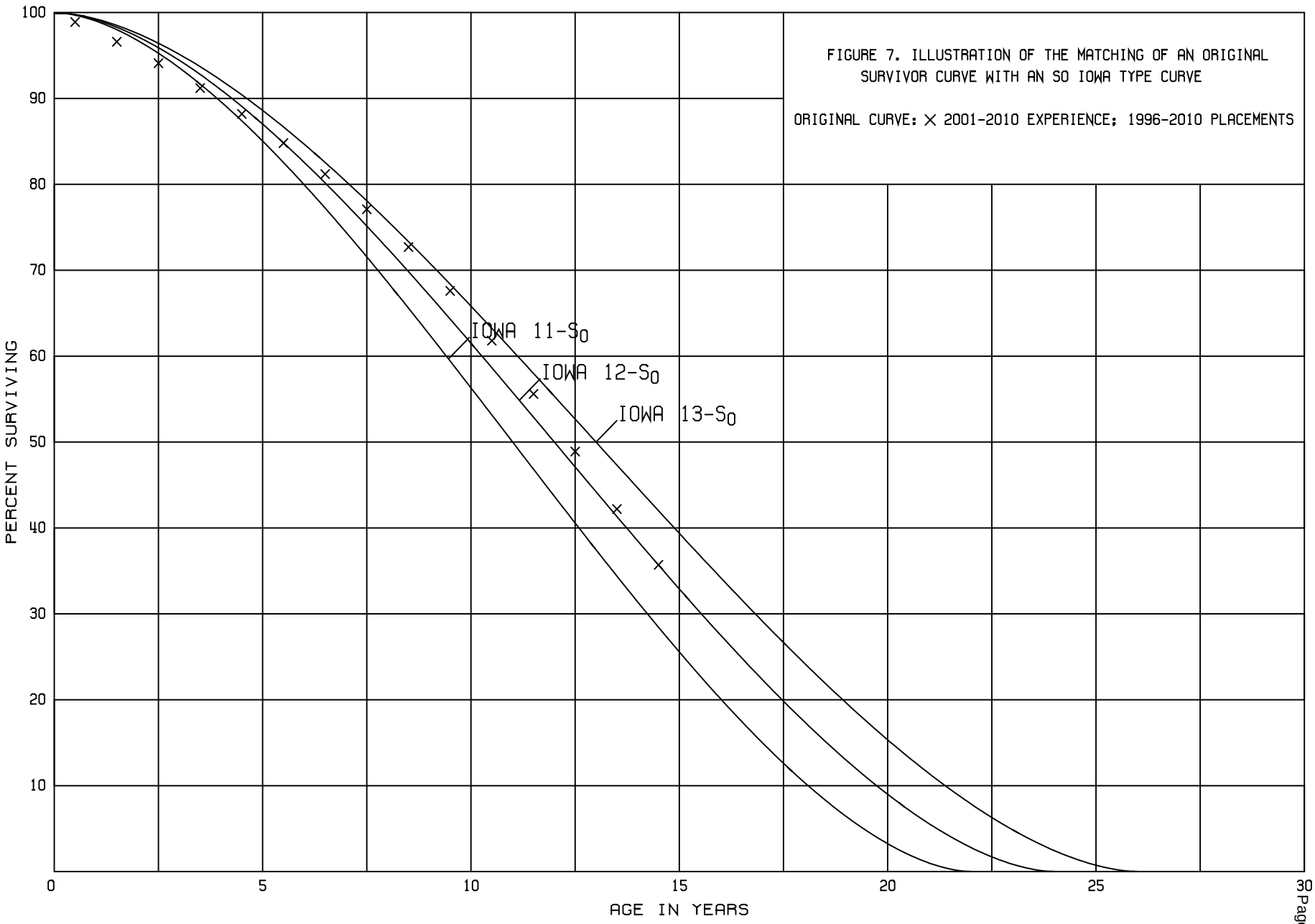

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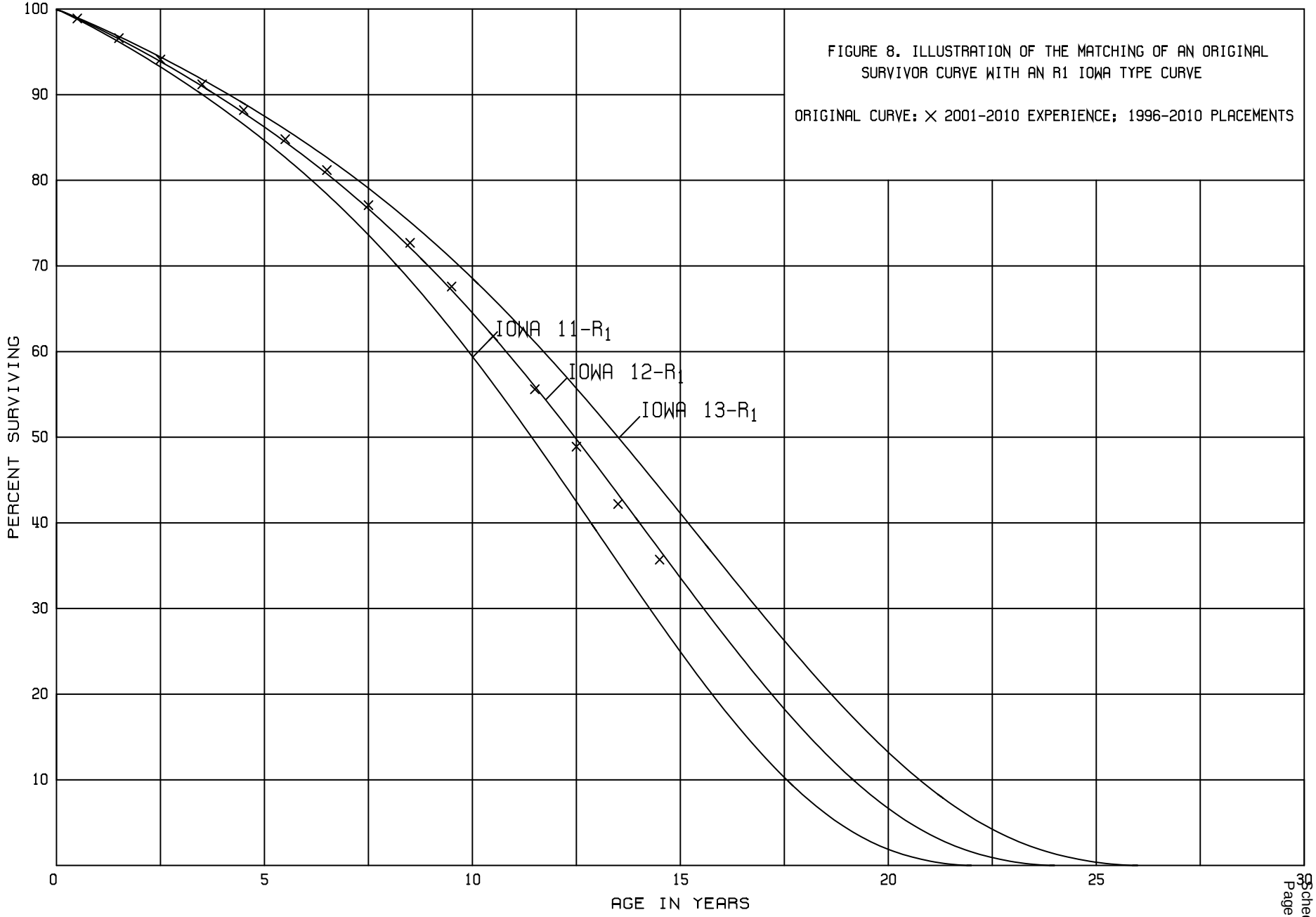

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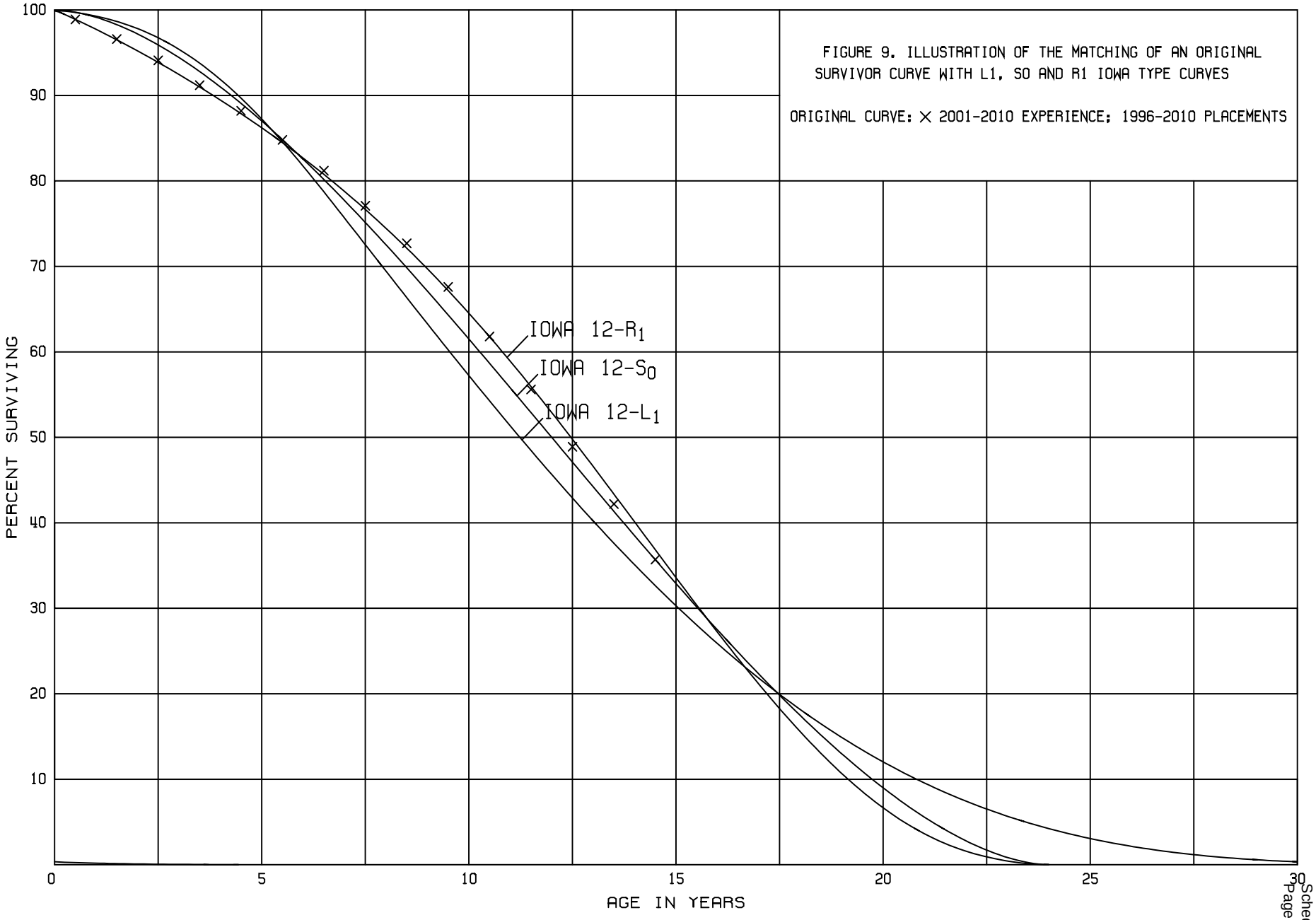

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From this curve, survivor ratios are computed and applied, by vintage, to the previous year's aged ending balance and the current test year's given gross addition. The resultant aged surviving balances also produce the aged retirements which are the differences between successive aged balances. The aged data are then analyzed by the retirement rate method as described above.

Simulated Plant Balance Method. The simulated plant balance method of life analysis is a statistical procedure by which experienced average service life and survivor characteristics are inferred through a series of approximations in which several average service life and survivor curve combinations are tested. The testing procedure consists of applying survivor ratios defined by the average service life and survivor curve combinations being tested to historical plant additions and comparing the resulting calculated, or simulated, surviving balances with the actual surviving balances.

Each year-end book balance is the sum of the plant surviving from the original annual additions. Each calculated year-end balance is the sum of the simulated plant surviving from the same original annual additions. The simulated survivors are calculated for each vintage by multiplying the original additions by the percent surviving corresponding to the age of the vintage as of the date of the year-end balances being simulated. This procedure is repeated until a series of simulated balances are calculated. The balances are then compared with the book balances to determine which average service life and survivor curve combinations result in calculated balances most nearly simulating the progression of actual balances.

The simulated plant record method is presented in greater detail in the Edison Electric Institute's publication, "Methods of Estimating Utility Plant Life."[7]

Survivor Curve Judgments.

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

Account 473.00, Distribution Services – represents approximately 34% of the depreciable distribution plant studied. The retirements, additions and other plant transactions generated through the use of the computed mortality method for the period 1956 through 2010 were analyzed using the retirement rate analysis method. The original survivor curve, as plotted on page III-19, provides a complete observed life table which indicates a trend of significant retirement ratios beginning early in the life and continuing through to the end of the life of the observation period. The high frequency of large retirement ratios in the early portions of the observation period is typical of a low- to mid-mode Iowa curve. The statistical analysis completed by Gannett Fleming provided an indication of the 40-L1.5 Iowa curve.

Interviews conducted by Gannett Fleming with the Operations group indicated that, while the system was historically built up through the acquisition of smaller municipally owned gas distribution systems (resulting in a mix of material types and installation

[7] A Report of the Engineering Subcommittee of the Depreciation Accounting Committee, Edison Electric Institute. Publication No. 51-23. Published 1952.

practices), the system is now mostly comprised of plastic pipe. Review of the surviving plant in service as provided at page III-89 of this report indicates that the vintages beginning in the late 1970's provide for the majority of plant in service. Likewise, the era prior to 1977, where early generation uncertified plastic pipe has exhibited within the industry to be an issue, does not comprise a significant portion of the investment remaining in service. The expectation of the Operational staff is that, because the system is now largely comprised of plastic pipe, the future life of the plant will not be impacted by future programs related to early generation plastic pipe, and the historic indications provide for a meaningful analysis of the future life expectations.

Gannett Fleming also tested the reasonableness of the statistically generated average service by comparing the preliminarily indications to a group of peer natural gas distribution utilities. The following peer group was selected giving consideration to geographic location, age of systems, timing of the last average service life study, and the type of regulatory oversight.

Company	Average Service Life
Enbridge - Currently Approved	35-S2.5
Union Gas - Metal	45-L3
Union Gas - Plastic	55-L2
Gaz Metro – Pending Regulatory Review	50-R2.5
Gazifere	50-S3
Centra Gas Manitoba	50-R2.5

The above analysis provides additional indications that the current average service life estimate should be lengthened. Given the consideration of all relevant information, Gannett Fleming recommends an increase in the current average service life estimate from the Iowa 35-S2.5 to the Iowa 40-L1.5. The recommended Iowa 40-L1.5

curve provides for a reasonable fit to the historic retirement trends, is consistent with the views of the Operations staff, and is closer to the range of average service life estimates of the relevant peer group of utilities.

Account 475.30 – Distribution Mains - Plastic, represents approximately 22% of the depreciable distribution plant studied. The retirements, additions and other plant transactions generated through the use of the computed mortality method for the period 1971 through 2010 were analyzed using the retirement rate analysis method. The original survivor curve, as plotted on page III-30, indicates only a minimal amount of plant retired to date.

Gannett Fleming interviews of Operations and Engineering staff regarding this account indicated that the company has a significant percentage of investment in plastic pipe installed in the 1968 through 1982 era. This era of plastic pipe has started to exhibit some performance issues, particularly with regard to the pipe joints and fittings. As such, it is felt that retirement of some of these vintages of pipe will be required over the next number of years.

Gannett Fleming considered the average service life estimates of the peer natural gas distribution utilities. The following table provides a summary of the average service life estimates of the peer utilities.

Company	Average Service Life
Enbridge - Currently Approved	50 years
Union Gas – Plastic	60 years
Gaz Metro – Pending Regulatory Review	60 years
Gazifere	75 years
Centra Gas Manitoba	65 years

Based on the consideration of all relevant information, Gannett Fleming recommends an increase in the current average service life estimate from the Iowa 50-S2 to the Iowa 55-R3. The recommended Iowa 55-R3 curve provides for a reasonable fit to the historic retirement trends, is consistent with the views of the Operations staff, and is closer to the range of average service life estimates of the relevant peer group of utilities.

Account 475.21 – Distribution Mains – Coated Steel, represents approximately 17% of the depreciable plant studied. The retirements, additions and other plant transactions generated through the use of the computed mortality method for the period 1957 through 2010 were analyzed using the retirement rate analysis method. The original survivor curve, as plotted on page III-27**,** indicates a consistent trend of retirement activity through age 50, at which point in time the remaining plant retires rapidly. This trend of retirement activity is consistent with the high mode R family of Iowa curves. The retirement rate analysis produced an average service life indication of the Iowa 61-R3.

Gannett Fleming interviews with Operations and Engineering staff have indicated that coated steel mains are primarily used within the Enbridge system on installations where pipe of 8 inches or greater diameter is required. It was also indicated that all coated steel mains within the system are protected with catholic control systems. Consistent with the retirement rate analysis, the internal company experts felt that the currently approved 50-year average service life should be lengthened.

Gannett Fleming considered the average service life estimates of the peer natural gas distribution utilities. The following table provides a summary of the average service life estimates of the peer utilities.

Company	Average Service Life
Enbridge - Currently Approved	50 years
Union Gas – Plastic	50 years
Gaz Metro	50 years
Gazifere	75 years
Centra Gas Manitoba	65 years

Based on the consideration of all relevant information, Gannett Fleming recommends an increase in the current average service life estimate from the Iowa 50-S2 to the Iowa 61-R3. The recommended Iowa 61-R3 curve provides for a reasonable fit to the historic retirement trends, is consistent with the views of the Operations staff, and within the range of average service life estimates of the relevant peer group of utilities.

Account 475.10 – Mains - Cast Iron and Account 475.20 – Mains - Bare Steel, represents only a small portion of plant in service as of the study date. The investment in these accounts relate to physical plant that is subject to dedicated replacement programs. The Company has indicated that all investment in these two accounts will be retired by the end of the year 2016. As such, the interim survivor curves will be truncated such that all investment in these accounts will be fully depreciated by December 31, 2016.

Account 472.00 – Structures and Improvements, represents the investment in the Company's buildings throughout the Enbridge Gas Distribution system. The majority of investment in this account relates to nine (9) larger office buildings. Interviews with company management have indicated that these buildings will be retired due to functional obsolescence and other economic forces. As such, these nine buildings have been assigned a specific life span date based on Company indications of the anticipated retirement date of each building, and depreciated in accordance with the

estimated life span date. The remaining investment relates to buildings used in the distribution function that will likely be in service until such time that they are retired due to physical wear and tear. It is anticipated that the historic retirement pattern of these buildings will be indicative of the future patterns. As such, the average service life for these remaining buildings was based on the analysis of the historic retirement pattern, as provided at page III-17 of this report.

Account 478.00 – Meters, represent approximately 6% of the depreciable plant studied. The retirements, additions and other plant transactions generated through the use of the computed mortality method for the period 1955 through 2010 were analyzed using the retirement rate analysis method.

Interviews with internal Enbridge metering experts have indicated that recent changes to the testing standards announced by Measurement Canada will result in additional testing of meters, and shorter certification periods as the meters age. As such, future retirement patterns will be affected by new certification periods so residential meters are expected to average 20 years and not to exceed 215 years. Additionally, Bill C-14 was recently passed through the Canadian Senate which provides for punitive fines to be levied in the circumstances where meters are found to fail in service. Gannett Fleming notes that these indications are consistent with the comments expressed to Gannett Fleming in the recent depreciation studies for other natural gas distribution companies. As such, Gannett Fleming considered the average service life estimates of the peer natural gas distribution utilities. The following table provides a summary of the average service life estimates of the peer utilities.

Company	Average Service Life
Enbridge - Currently Approved	40 years *
Union Gas	27 years *
Gaz Metro	18 years
Gazifere	12 years
Centra Gas Manitoba	28 years *

(*) Studies completed prior to the Measurement Canada changes

Based on the consideration of all relevant information, Gannett Fleming recommends a decrease in the average service life estimate from the Iowa 40-R1 to the Iowa 20-S2. The recommended Iowa 20-S2 curve is consistent with the views of the internal metering experts, and within the range of average service life estimates of the relevant peer group of utilities.

The survivor curve estimates for the remaining accounts were based on similar considerations of historical analyses, management outlook and estimates for this Company and other natural gas distribution utilities.

ESTIMATION OF NET SALVAGE

The estimates of net salvage were based primarily on the professional judgment of Gannett Fleming, in part on historical data through 2010, and in part through a comparison to peer natural gas distribution companies. Gross salvage and cost of removal as recorded to the depreciation reserve account and related to experienced retirements were used. Percentages of the cost of plant retired were calculated for each component of net salvage on both annual and five-year moving average bases.

The net salvage percentages estimated in this study have been determined using the “Traditional Approach” for net salvage estimation. When a utility retires plant, the

plant may be: (1) sold to a third party; (2) reused by the utility for additional service; (3) abandoned in place; or (4) physically removed. In the circumstances where the plant is sold or reused, a salvage proceed (or positive salvage amount) is normally recognized. In circumstances where the plant is abandoned in place or physically removed, a cost of removal expenditure (or negative salvage) is incurred. The net of these estimated gross salvage proceeds and the estimated costs of removal are expressed as a percentage of the accounts original cost to determine a net salvage percentage. In the circumstances where the salvage proceeds exceed the costs of retirement a net positive salvage percentage exists. In the circumstances where the costs of removal exceed the salvage proceeds, a net negative salvage percentage results.

The statistical analysis of the net salvage transactions analyzed for each account is provided in this report beginning at page III-52**.**

CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

Group Depreciation Procedures. When more than a single item of property is under consideration, a group procedure for depreciation is appropriate because normally all of 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 service 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. In this procedure, the accrued depreciation is based on the average service life of the group and the average remaining life of each vintage within the group derived from the area under the survivor curve between the attained age of the vintage and the maximum age.

In the equal life group procedure, the property group is subdivided according to service life. That is, each equal life group includes that portion of the property which experiences the life of that specific group. The relative size of each equal life group is determined from the property's life dispersion curve. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each equal life group.

It is the view of Gannett Fleming that the ELG procedure provides a superior match of the consumption of service values of the assets in service to the depreciation expense. However, the ASL procedure is widely used throughout North America and has been used historically by both Enbridge and Union Gas in the province of Ontario. As such Gannett Fleming has incorporated the use of the ASL procedure in the calculation of the depreciation accrual rates in this depreciation study.

PART III. RESULTS OF STUDY

PART III. RESULTS OF STUDY

QUALIFICATION OF RESULTS

The calculated annual and accrued depreciation and the calculation of the composite average remaining life 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 salvage and for the change of the composition of property in service. The annual accrual rates and the accrued depreciation were calculated in accordance with the straight line method, using the average service life procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

DESCRIPTION OF DETAILED TABULATIONS

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 natural gas distribution utilities. The results of the statistical analysis of service life are presented in the supporting materials document beginning on page III-6.

For each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves is 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 that appear in the experience.

The tables of the calculated annual depreciation applicable to gas plant as of December 31, 2010 are presented in account sequence starting on page III-70. The tables indicate the estimated average survivor curves and net salvage percents used in the calculations. The tables set forth, for each installation year, the original cost, calculated accrued depreciation, allocated book reserve, future book accruals, remaining life and the calculated annual accrual.

ENBRIDGE GAS DISTRIBUTION, INC.

SCHEDULE 1. ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2010

	DEPRECIABLE GROUP	LIFE SPAN DATE	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AS OF DECEMBER 31, 2010	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)=(8)/(5)	(10)=(7)/(8)
	UNDERGROUND STORAGE PLANT									
451.10	LAND RIGHTS INTANGIBLE		65-R4	0	40,677,681.02	20,903,515	19,774,166	471,763	1.16	41.9
452.00	STRUCTURES AND IMPROVEMENTS		45-R1.5	0	14,347,230.72	4,707,662	9,639,569	264,121	1.84	36.5
453.00	WELLS		45-R3	(5)	39,390,932.60	18,686,577	22,673,903	588,425	1.49	38.5
454.00	WELL EQUIPMENT		25-R4	0	9,082,877.24	4,537,985	4,544,893	504,759	5.56	9.0
455.00	FIELD LINES		55-R3	(5)	46,727,709.77	20,777,099	28,286,997	682,817	1.46	41.4
456.00	COMPRESSOR EQUIPMENT		40-R2	(5)	91,781,488.80	31,054,880	65,315,683	2,348,195	2.56	27.8
457.00	MEASURING AND REGULATING EQUIPMENT		30-R1.5	(5)	11,556,319.66	5,020,691	7,113,444	339,541	2.94	21.0
	TOTAL UNDERGROUND STORAGE PLANT				**253,564,239.81**	**105,688,408**	**157,348,655**	**5,199,621**		
	DISTRIBUTION PLANT									
471.00	LAND RIGHTS		75-R4	0	7,446,766.43	1,077,659	6,369,108	87,835	1.18	72.5
472.00	STRUCTURES AND IMPROVEMENTS									
	VICTORIA PARK CENTRE	2018	60-S1.5	20	37,219,211.41	572,119	29,203,250	3,696,664	9.93	7.9
	KENNEDY ROAD	2013	60-S1.5	20	2,255,051.09	219,325	1,584,716	530,544	23.53	3.0
	OTTAWA OFFICE	2025	60-S1.5	20	14,185,520.86	1,519,771	9,828,646	681,838	4.81	14.4
	BROCKVILLE	2025	60-S1.5	20	499,805.09	42,438	357,406	24,458	4.89	14.6
	ARNPRIOR	2025	60-S1.5	20	570,720.87	102,517	354,060	25,203	4.42	14.1
	THOROLD OFFICE	2030	60-S1.5	20	11,942,502.87	1,373,703	8,180,300	430,567	3.61	19.0
	EASTERN	2020	60-S1.5	20	1,598,370.41	212,254	1,066,442	109,685	6.86	9.7
	KELFIELD	2020	60-S1.5	20	1,198,780.11	68,117	890,907	90,368	7.54	9.9
	OTTAWA DEPOT	2020	60-S1.5	20	3,071,473.75	313,477	2,143,702	217,403	7.08	9.9
	OTHER		43-R1	(5)	9,447,020.00	835,027	9,084,344	281,363	2.98	32.3
	TOTAL STRUCTURES AND IMROVEMENTS				81,988,456.46	5,258,749	62,693,773	6,088,093	7.43	10.3
473.00	SERVICES		40-L1.5	(45)	2,024,545,898.65	869,945,320	2,065,646,233	70,218,804	3.47	29.4
475.10	MAINS - CAST IRON	2016	43-R2	(125)	5,475,959.17	(9,973,664)	22,294,573	5,024,383	91.75	4.4
475.20	MAINS - BARE STEEL	2016	40-R0.5	(125)	9,114,622.69	9,031,401	11,476,500	2,120,762	23.27	5.4
475.21	MAINS - COATED STEEL		61-R3	(90)	1,013,837,309.81	464,144,414	1,462,146,475	35,118,828	3.46	41.6
475.30	MAINS - PLASTIC		55-R3	(85)	1,329,234,199.97	463,148,188	1,995,935,082	44,748,802	3.37	44.6
475.EN	MAINS - ENVISION		25-SQ	0	123,554,753.26	19,041,660	104,513,093	4,978,220	4.03	21.0
476.00	COMPANY NGV COMPRESSOR STATIONS		16-R3	0	2,593,465.93	1,605,736	987,730	154,719	5.97	6.4
477.00	MEASURING AND REGULATING EQUIPMENT		33-L1.5	(5)	314,899,806.96	159,007,375	171,637,423	6,742,150	2.14	25.5
478.00	METERS		20-S2	5	367,745,143.92	92,616,048	256,741,838	33,901,782	9.22	7.6
	TOTAL DISTRIBUTION PLANT				**5,280,436,383.25**	**2,074,902,884**	**6,160,441,828**	**209,184,378**		
	GENERAL PLANT									
483.01	OFFICE EQUIPMENT		15-SQ	0	2,943,774.63	2,894,801	48,973	4,476	0.15	10.9
483.02	FURNISHINGS		20-SQ	0	15,187,993.56	6,067,053	9,120,940	1,631,823	10.74	5.6
484.00	TRANSPORTATION EQUIPMENT		11-L1.5	0	40,957,195.90	7,841,000	33,116,196	4,324,076	10.56	7.7
484.01	TRANSPORTATION - COMPANY NGV KITS		9-L1	0	7,725,285.81	4,607,319	3,117,967	695,264	9.00	4.5
484.02	TRANSPORTATION - COMPANY NGV CYLINDERS		7-S2.5	0	832,468.99	787,083	45,386	17,454	2.10	2.6
485.00	HEAVY WORK EQUIPMENT		15-L2	25	19,287,538.85	6,829,160	7,636,495	691,216	3.58	11.0
486.00	TOOLS AND WORK EQUIPMENT		25-SQ	0	34,254,316.60	13,117,640	21,136,677	1,398,995	4.08	15.1
487.70	RENTAL - VRA'S		20-SQ	0	1,016,149.14	964,239	51,910	7,519	0.74	6.9
487.80	RENTAL - NGV STATION		20-SQ	0	4,855,654.18	3,100,277	1,755,377	388,899	8.01	4.5
487.90	RENTAL - NGV CYLINDERS		10-S2.5	0	1,452,290.39	705,489	746,801	274,905	18.93	2.7
488.00	COMMUNICATION EQUIPMENT		10-SQ	0	3,013,445.06	2,122,651	890,794	292,699	9.71	3.0
	TOTAL GENERAL PLANT				**131,526,113.11**	**49,036,712**	**77,667,516**	**9,727,326**		

ENBRIDGE GAS DISTRIBUTION, INC.

SCHEDULE 1. ESTIMATED SURVIVOR CURVE, NET SALVAGE PERCENT, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO GAS PLANT AS OF DECEMBER 31, 2010

	DEPRECIABLE GROUP	LIFE SPAN DATE	SURVIVOR CURVE	NET SALVAGE PERCENT	ORIGINAL COST AS OF DECEMBER 31, 2010	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)=(8)/(5)	(10)=(7)/(8)
	COMPUTER AND SOFTWARE									
490.00	COMPUTER EQUIPMENT		5-SQ	0	32,547,213.12	4,351,484	28,195,729	11,923,129	36.63	2.4
491.01	SOFTWARE - ACQUIRED		4-SQ	0	49,671,020.01	24,804,515	24,866,505	13,073,699	26.32	1.9
491.02	SOFTWARE - DEVELOPED		5-SQ	0	40,552,310.80	19,179,561	21,372,750	8,612,322	21.24	2.5
491.03	C.I.S. SOFTWARE ACQUIRED		10-SQ	0	127,098,143.30	15,741,236	111,356,908	12,709,800 *	10.00	8.5
	TOTAL COMPUTER AND SOFTWARE				**249,868,687.23**	**64,076,795**	**185,791,892**	**46,318,950**		
	TOTAL DEPRECIABLE GAS PLANT				**5,915,395,423.40**	**2,293,704,799**	**6,581,249,891**	**270,430,275**		

* Annual Accrual Amount represents amortization for 10 years from previous Order

** Annual Accrual Rates for New Structures in Account 472.00 after January 1, 2011 are as follows:

New Kennedy Road	2.13%
Markham TT Builiding	2.18%
New Fleet Garage	2.13%

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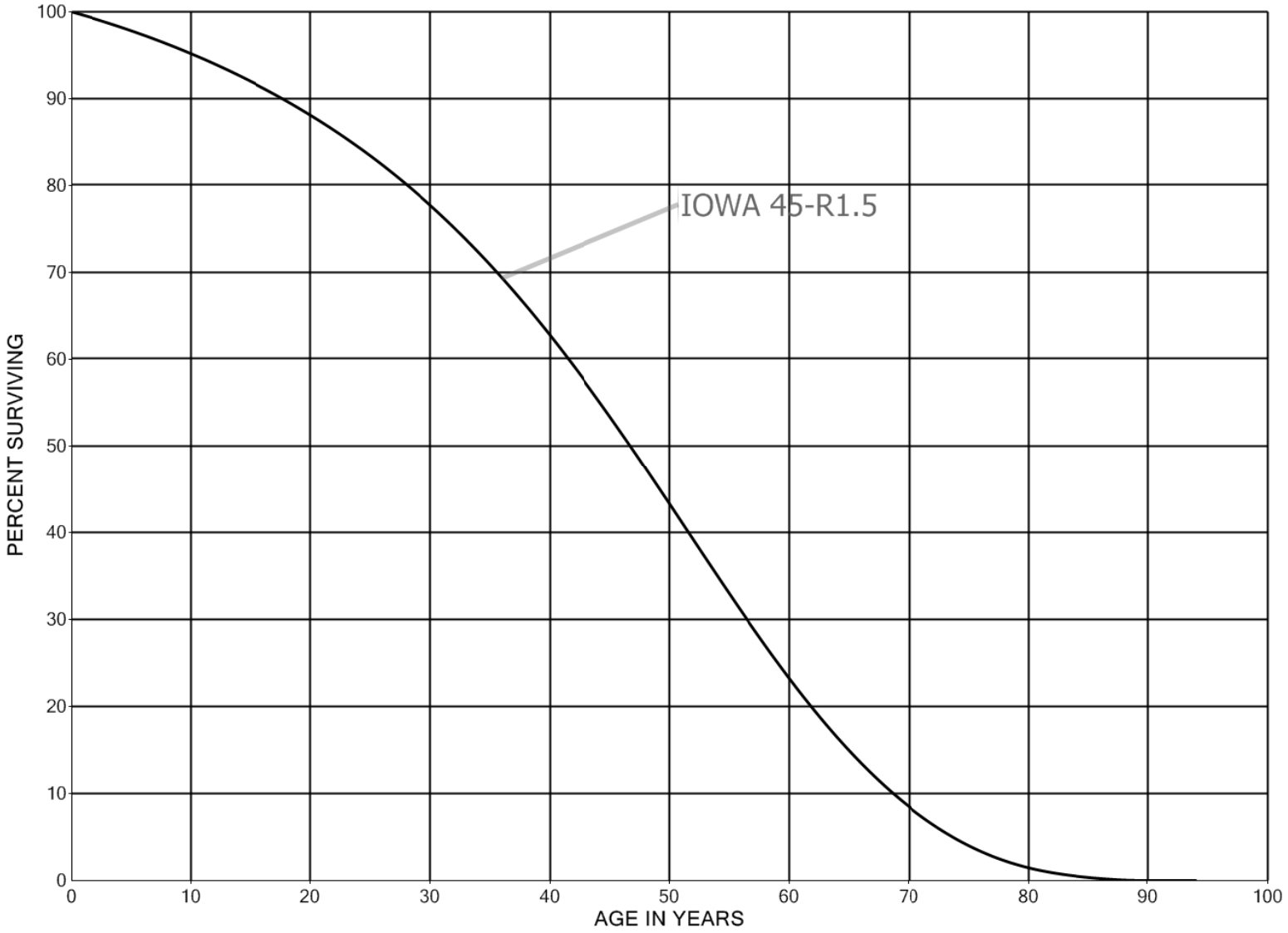
SERVICE LIFE STATISTICS

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 452.00 - STRUCTURES AND IMPROVEMENTS
SMOOTH SURVIVOR CURVE



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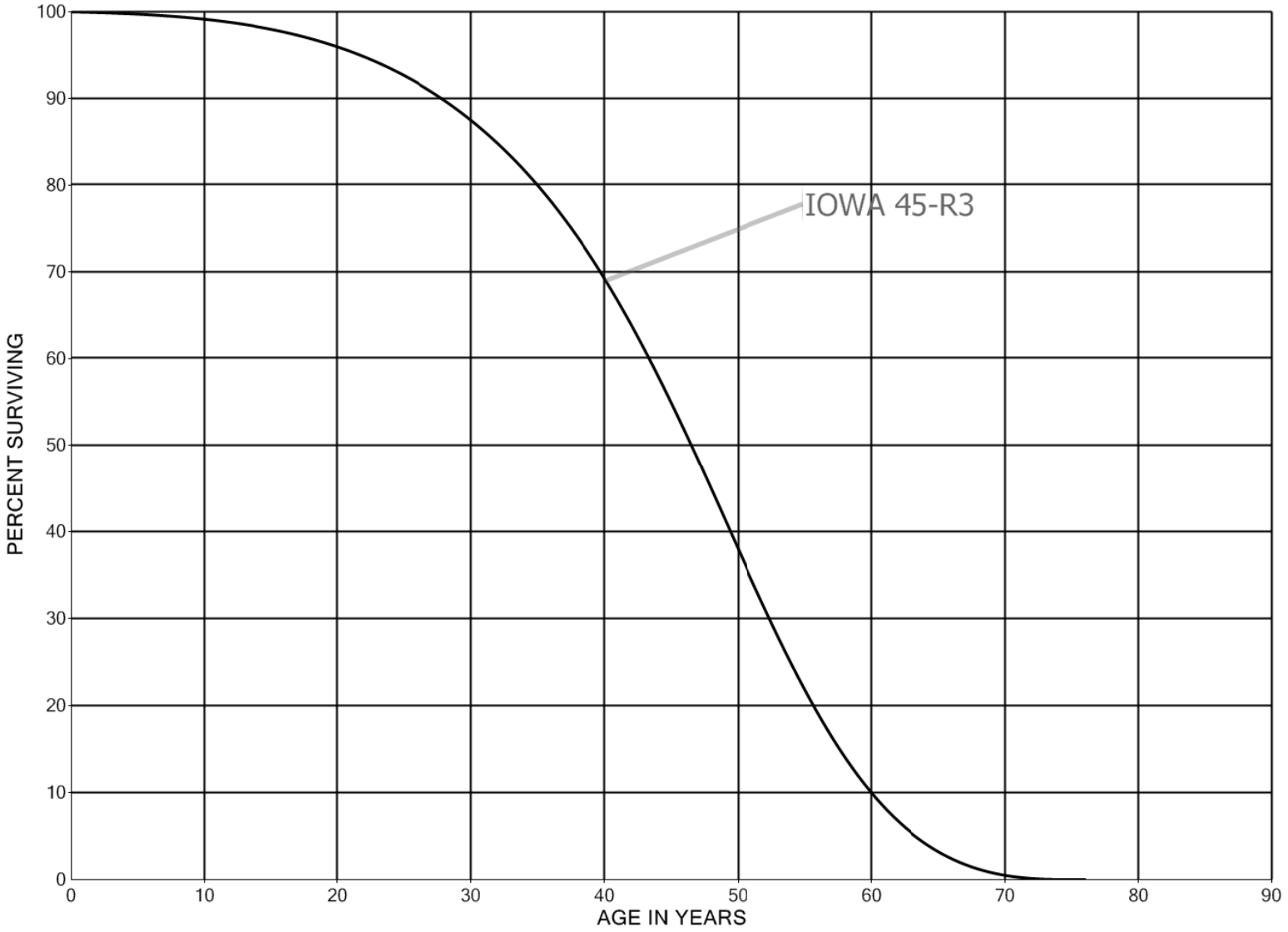
ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 453.00 - WELLS
SMOOTH SURVIVOR CURVE



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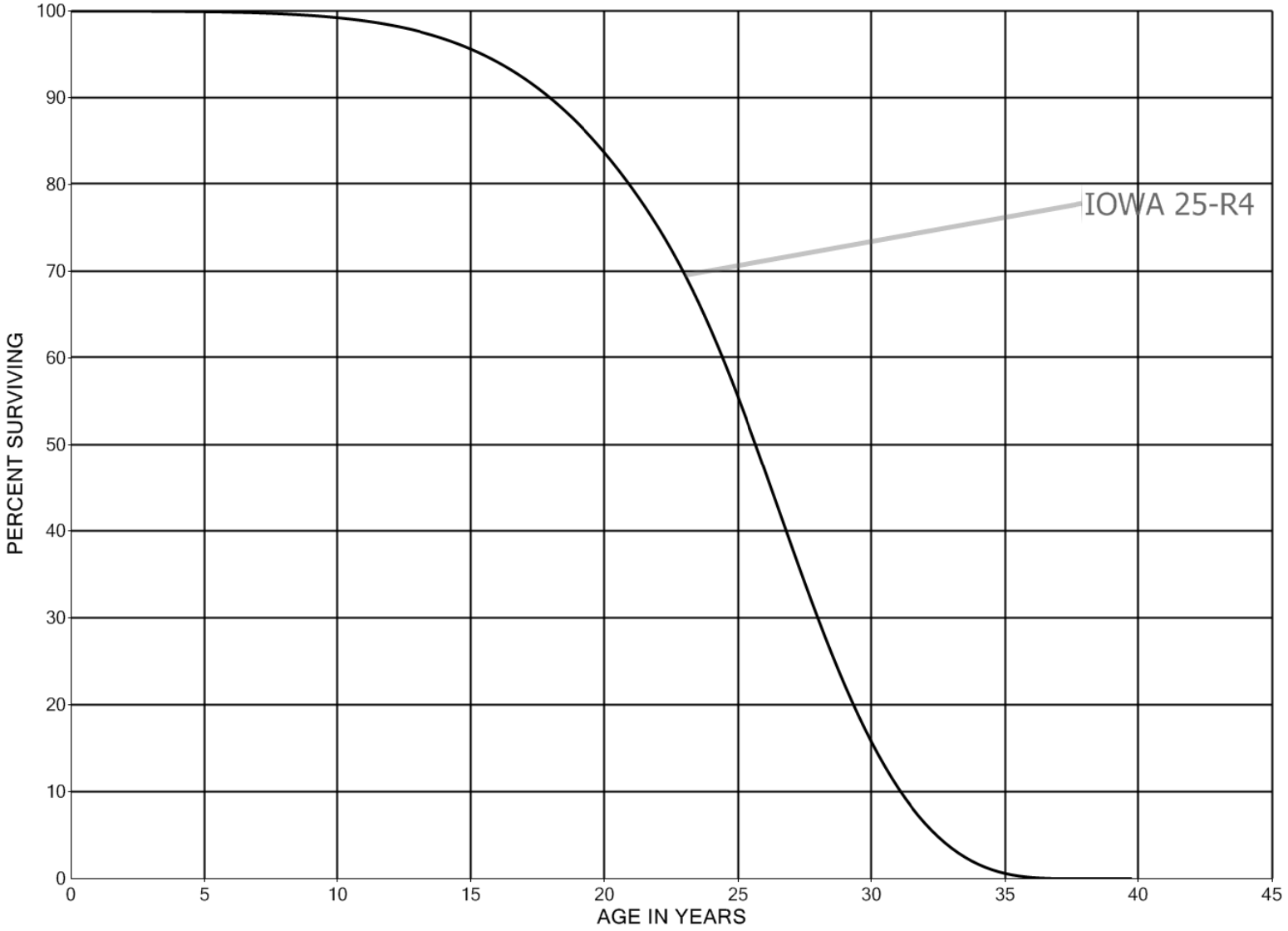
ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 454.00 - WELL EQUIPMENT
SMOOTH SURVIVOR CURVE



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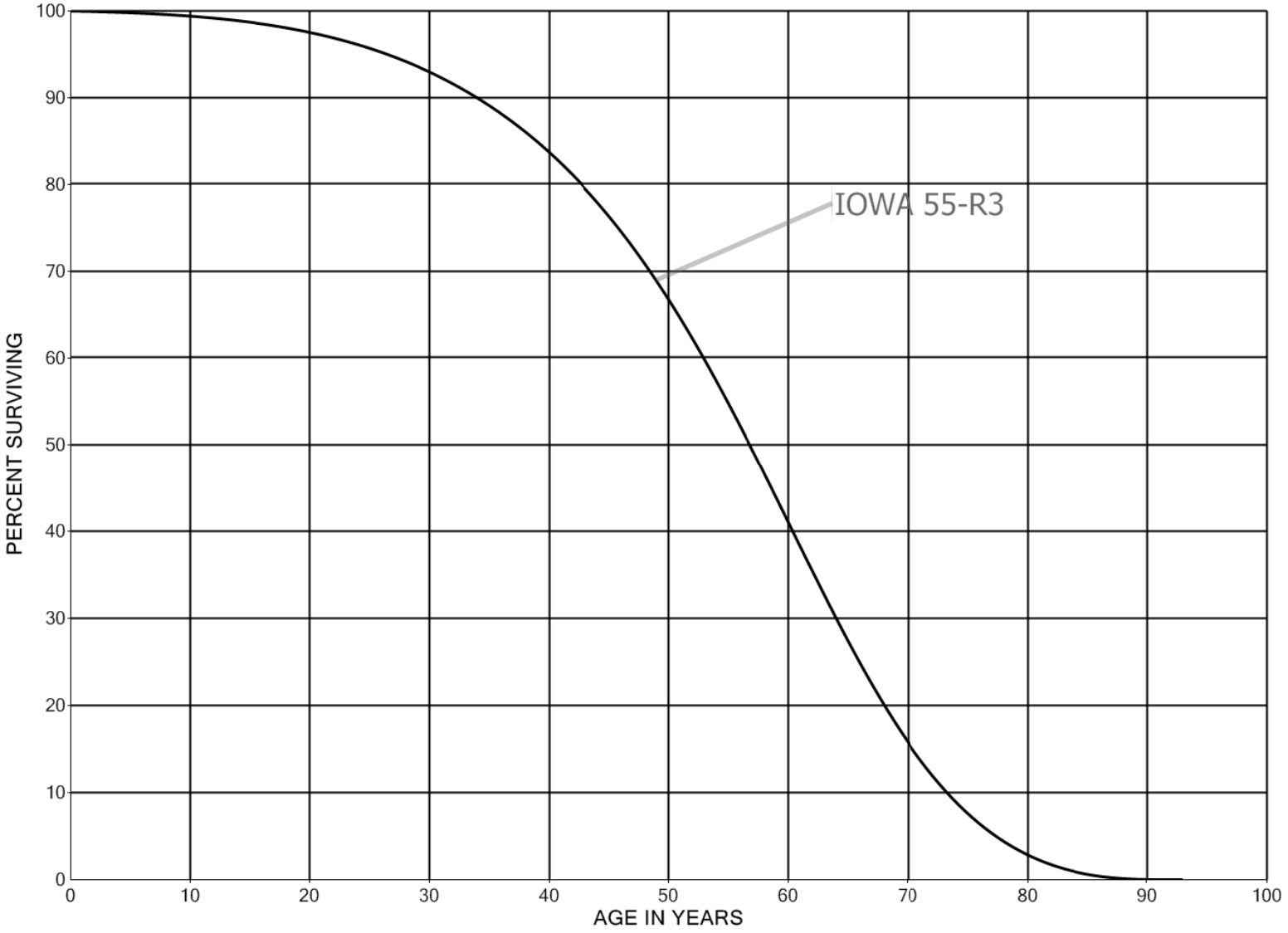
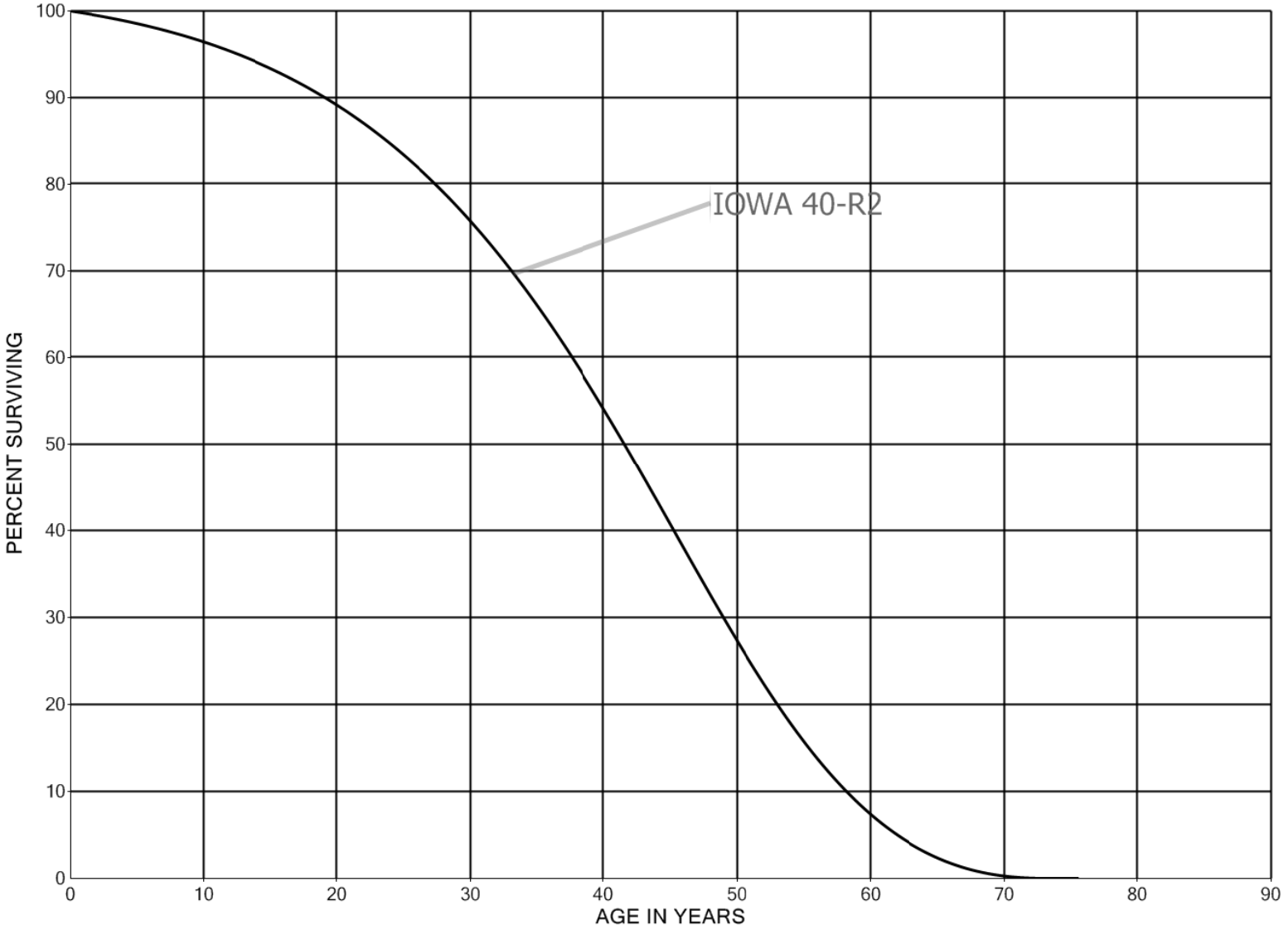
ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 455.00 - FIELD LINES
SMOOTH SURVIVOR CURVE



ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 456.00 - COMPRESSOR EQUIPMENT
SMOOTH SURVIVOR CURVE



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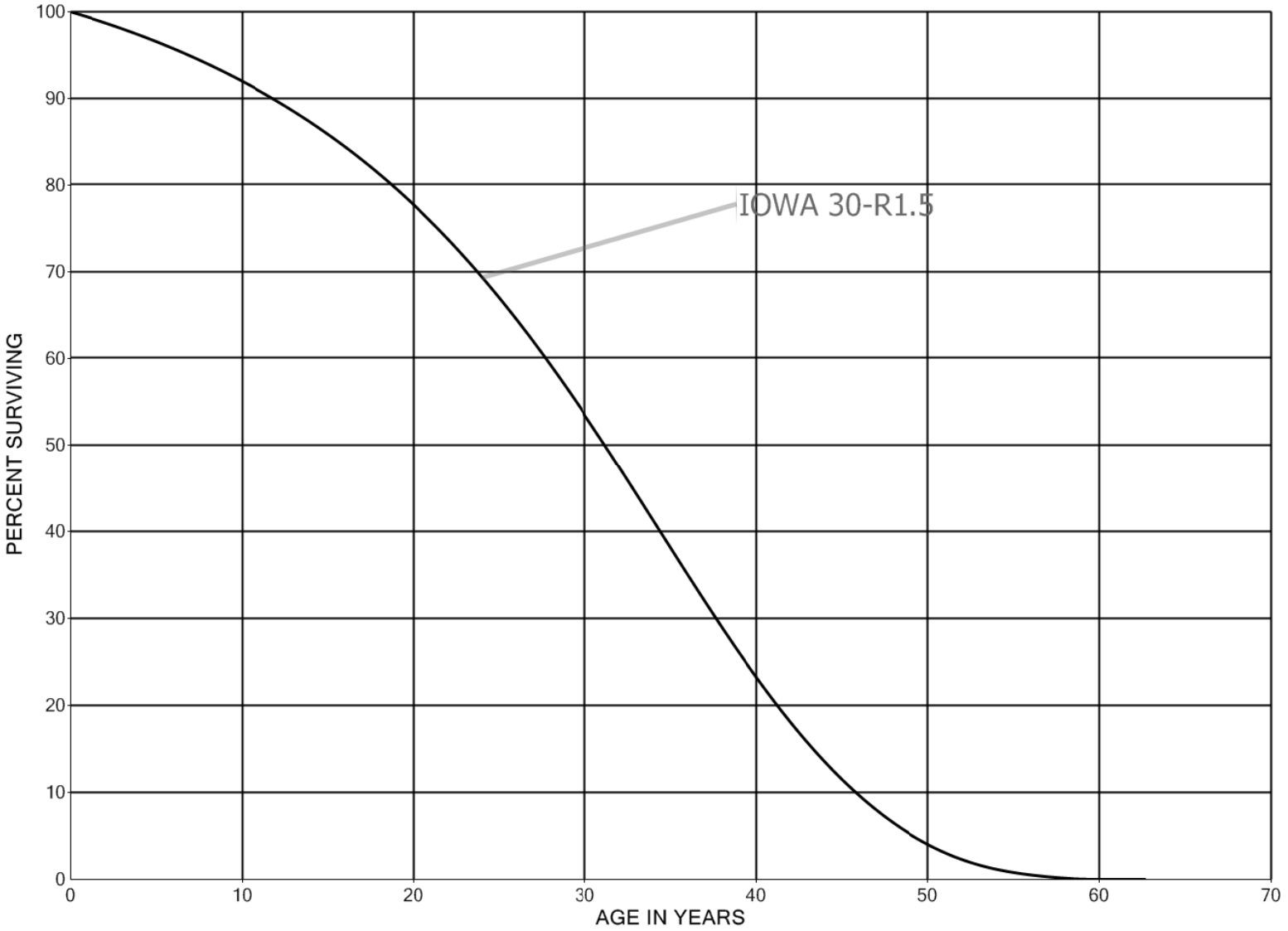
ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 457.00 - MEASURING AND REGULATING EQUIPMENT
SMOOTH SURVIVOR CURVE



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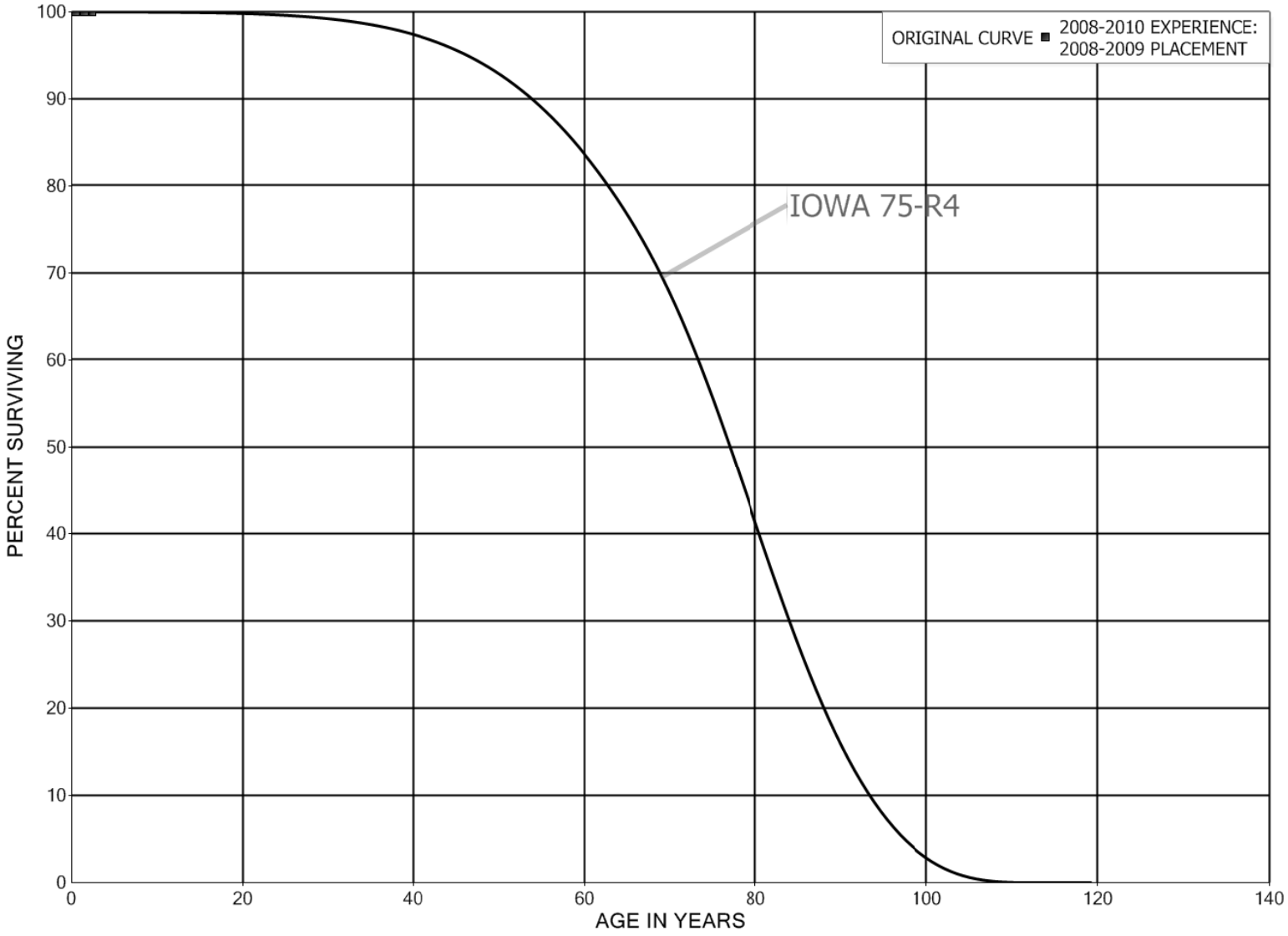
ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 471.00 - LAND RIGHTS
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

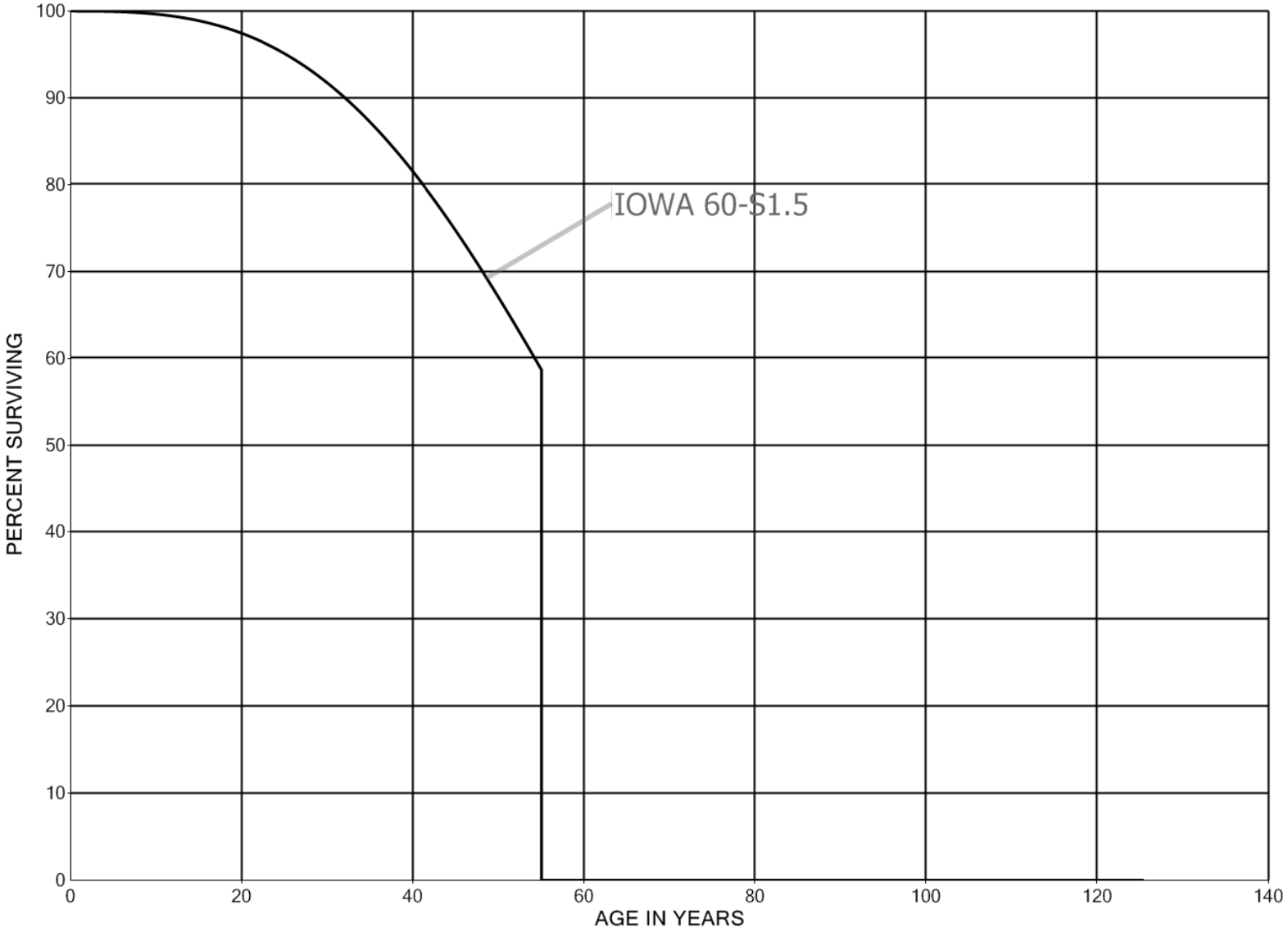
ACCOUNT 471.00 - LAND RIGHTS

ORIGINAL LIFE TABLE

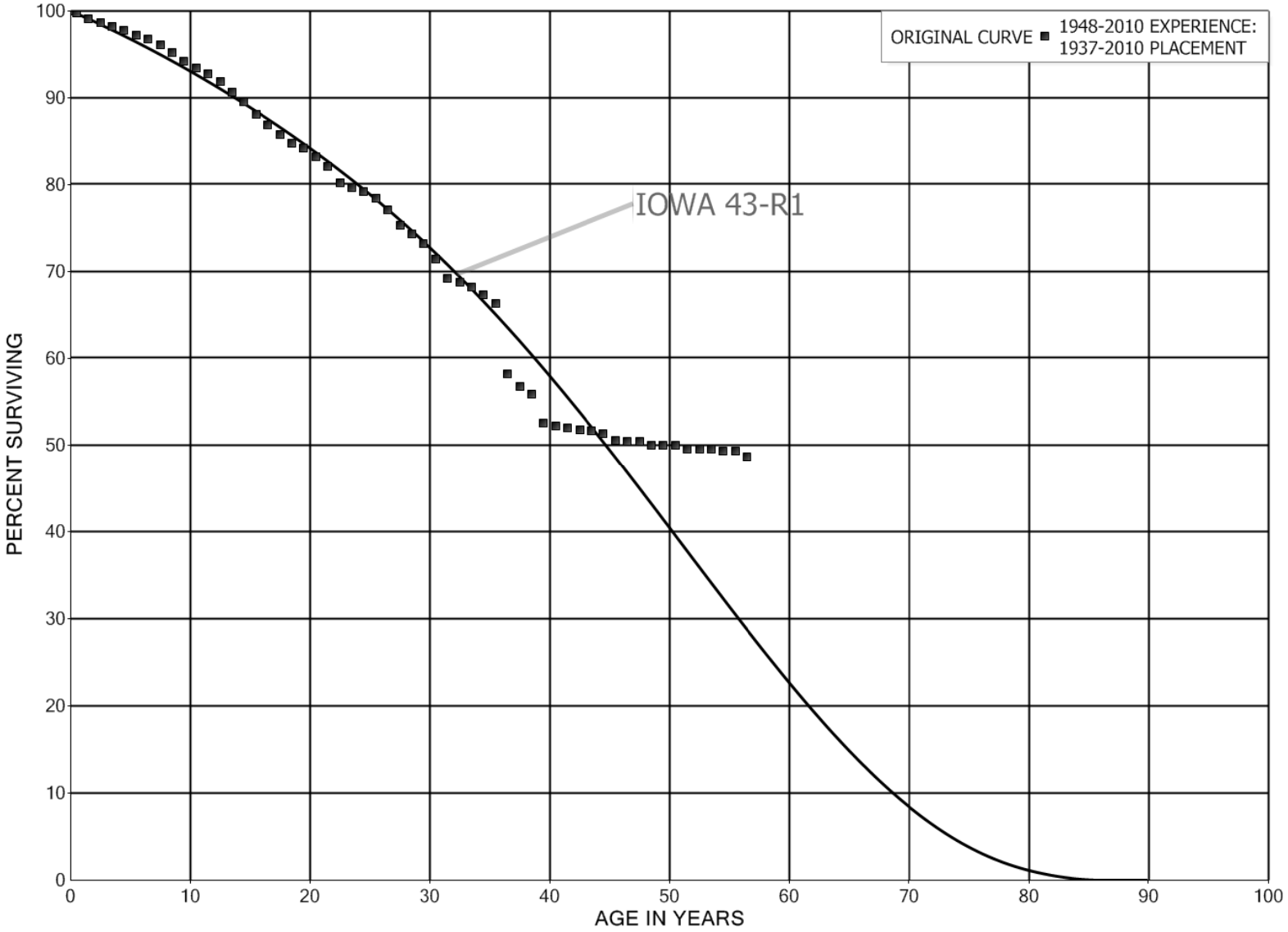
PLACEMENT BAND 2008-2009 EXPERIENCE BAND 2008-2010

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	7,421,413		0.0000	1.0000	100.00
0.5	7,421,413		0.0000	1.0000	100.00
1.5	7,359,865		0.0000	1.0000	100.00
2.5					100.00

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 472.00 – STRUCTURES AND IMPROVEMENTS - MAJOR
SMOOTH SURVIVOR CURVE



ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS - OTHER
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS - OTHER

ORIGINAL LIFE TABLE

PLACEMENT BAND 1937-2010 EXPERIENCE BAND 1948-2010

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	114,197,651	301,915	0.0026	0.9974	100.00
0.5	108,809,242	683,640	0.0063	0.9937	99.74
1.5	105,814,142	470,253	0.0044	0.9956	99.11
2.5	102,815,323	485,311	0.0047	0.9953	98.67
3.5	98,625,157	527,249	0.0053	0.9947	98.20
4.5	96,629,313	469,767	0.0049	0.9951	97.68
5.5	93,309,527	483,218	0.0052	0.9948	97.20
6.5	89,606,523	585,225	0.0065	0.9935	96.70
7.5	87,528,258	810,815	0.0093	0.9907	96.07
8.5	85,215,444	906,474	0.0106	0.9894	95.18
9.5	84,294,469	707,278	0.0084	0.9916	94.17
10.5	83,545,373	613,543	0.0073	0.9927	93.38
11.5	82,807,058	749,190	0.0090	0.9910	92.69
12.5	82,013,645	1,094,757	0.0133	0.9867	91.85
13.5	80,823,191	953,692	0.0118	0.9882	90.63
14.5	79,273,312	1,277,489	0.0161	0.9839	89.56
15.5	74,980,724	1,045,238	0.0139	0.9861	88.11
16.5	73,846,148	990,584	0.0134	0.9866	86.88
17.5	72,675,956	817,559	0.0112	0.9888	85.72
18.5	71,459,222	452,077	0.0063	0.9937	84.75
19.5	70,780,809	918,739	0.0130	0.9870	84.22
20.5	60,325,479	793,581	0.0132	0.9868	83.13
21.5	59,352,455	1,372,520	0.0231	0.9769	82.03
22.5	57,853,131	352,456	0.0061	0.9939	80.13
23.5	56,816,271	318,114	0.0056	0.9944	79.65
24.5	56,415,588	585,987	0.0104	0.9896	79.20
25.5	55,112,349	897,792	0.0163	0.9837	78.38
26.5	54,211,962	1,245,977	0.0230	0.9770	77.10
27.5	52,890,502	737,369	0.0139	0.9861	75.33
28.5	52,133,095	774,535	0.0149	0.9851	74.28
29.5	51,268,837	1,233,634	0.0241	0.9759	73.18
30.5	49,298,380	1,516,006	0.0308	0.9692	71.41
31.5	47,762,639	340,230	0.0071	0.9929	69.22
32.5	47,417,399	362,775	0.0077	0.9923	68.73
33.5	45,291,034	594,998	0.0131	0.9869	68.20
34.5	28,510,581	452,924	0.0159	0.9841	67.30
35.5	28,027,627	3,406,032	0.1215	0.8785	66.23
36.5	14,133,617	360,210	0.0255	0.9745	58.19
37.5	13,558,286	196,193	0.0145	0.9855	56.70
38.5	13,228,393	800,403	0.0605	0.9395	55.88

ENBRIDGE GAS DISTRIBUTION, INC

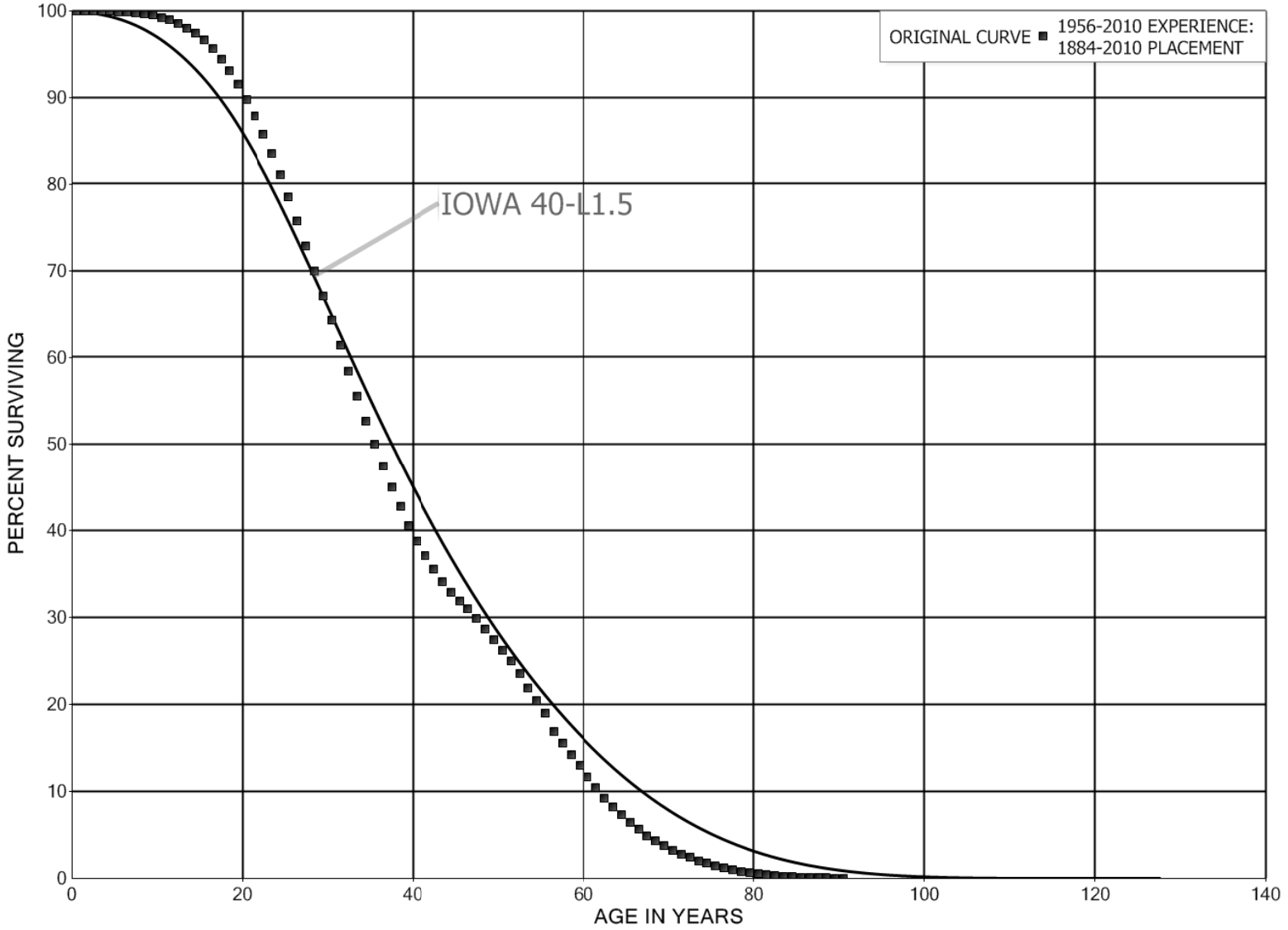
ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS - OTHER

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1937-2010 EXPERIENCE BAND 1948-2010

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	12,381,592	84,640	0.0068	0.9932	52.50
40.5	12,255,761	54,039	0.0044	0.9956	52.14
41.5	11,370,117	47,890	0.0042	0.9958	51.91
42.5	11,229,806	11,138	0.0010	0.9990	51.69
43.5	11,185,867	73,360	0.0066	0.9934	51.64
44.5	11,069,843	180,602	0.0163	0.9837	51.30
45.5	10,798,257	16,630	0.0015	0.9985	50.47
46.5	9,026,224	427	0.0000	1.0000	50.39
47.5	8,981,897	69,501	0.0077	0.9923	50.39
48.5	1,950,418	24	0.0000	1.0000	50.00
49.5	1,948,028	3,663	0.0019	0.9981	50.00
50.5	1,596,593	11,812	0.0074	0.9926	49.90
51.5	491,370	49	0.0001	0.9999	49.53
52.5	486,943		0.0000	1.0000	49.53
53.5	486,943	2,863	0.0059	0.9941	49.53
54.5	239,607		0.0000	1.0000	49.24
55.5	239,607	3,032	0.0127	0.9873	49.24
56.5					48.61

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 473.00 - SERVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

ACCOUNT 473.00 - SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1884-2010 EXPERIENCE BAND 1956-2010

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	2,318,496,950	146,554	0.0001	0.9999	100.00
0.5	2,212,804,434	229,387	0.0001	0.9999	99.99
1.5	2,137,720,363	292,381	0.0001	0.9999	99.98
2.5	2,054,323,518	391,787	0.0002	0.9998	99.97
3.5	1,965,979,821	542,699	0.0003	0.9997	99.95
4.5	1,877,449,159	720,317	0.0004	0.9996	99.92
5.5	1,800,263,688	830,465	0.0005	0.9995	99.88
6.5	1,767,034,482	1,564,916	0.0009	0.9991	99.84
7.5	1,672,846,711	1,985,022	0.0012	0.9988	99.75
8.5	1,599,712,260	2,764,831	0.0017	0.9983	99.63
9.5	1,505,132,606	3,643,781	0.0024	0.9976	99.46
10.5	1,397,951,610	4,457,907	0.0032	0.9968	99.22
11.5	1,307,022,311	5,386,804	0.0041	0.9959	98.90
12.5	1,226,763,824	6,252,652	0.0051	0.9949	98.49
13.5	1,156,491,712	7,530,998	0.0065	0.9935	97.99
14.5	1,061,497,474	8,617,495	0.0081	0.9919	97.35
15.5	969,554,734	9,753,675	0.0101	0.9899	96.56
16.5	882,192,673	10,597,438	0.0120	0.9880	95.59
17.5	806,150,219	11,364,103	0.0141	0.9859	94.44
18.5	734,706,304	12,428,694	0.0169	0.9831	93.11
19.5	673,890,029	12,975,487	0.0193	0.9807	91.54
20.5	617,490,067	13,359,548	0.0216	0.9784	89.78
21.5	565,739,060	13,403,442	0.0237	0.9763	87.83
22.5	513,333,652	13,660,570	0.0266	0.9734	85.75
23.5	465,328,730	13,623,340	0.0293	0.9707	83.47
24.5	420,042,097	13,279,107	0.0316	0.9684	81.03
25.5	381,523,029	13,362,392	0.0350	0.9650	78.46
26.5	337,778,518	12,940,558	0.0383	0.9617	75.72
27.5	302,281,547	12,057,598	0.0399	0.9601	72.82
28.5	270,483,373	10,888,511	0.0403	0.9597	69.91
29.5	235,252,338	9,806,237	0.0417	0.9583	67.10
30.5	202,848,258	9,076,443	0.0447	0.9553	64.30
31.5	172,716,502	8,418,124	0.0487	0.9513	61.42
32.5	151,145,355	7,634,416	0.0505	0.9495	58.43
33.5	133,480,602	6,925,916	0.0519	0.9481	55.48
34.5	117,332,446	6,009,639	0.0512	0.9488	52.60
35.5	102,463,646	5,117,181	0.0499	0.9501	49.91
36.5	89,984,830	4,633,143	0.0515	0.9485	47.41
37.5	75,141,126	3,788,705	0.0504	0.9496	44.97
38.5	64,641,774	3,268,319	0.0506	0.9494	42.70

ENBRIDGE GAS DISTRIBUTION, INC

ACCOUNT 473.00 - SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1884-2010 EXPERIENCE BAND 1956-2010

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	54,808,538	2,452,062	0.0447	0.9553	40.55
40.5	48,674,176	2,107,886	0.0433	0.9567	38.73
41.5	42,608,200	1,779,863	0.0418	0.9582	37.05
42.5	37,027,269	1,482,584	0.0400	0.9600	35.51
43.5	32,967,358	1,205,582	0.0366	0.9634	34.08
44.5	29,714,190	940,374	0.0316	0.9684	32.84
45.5	27,443,388	744,357	0.0271	0.9729	31.80
46.5	26,093,122	898,601	0.0344	0.9656	30.94
47.5	23,155,398	993,044	0.0429	0.9571	29.87
48.5	19,692,589	854,767	0.0434	0.9566	28.59
49.5	17,221,263	751,903	0.0437	0.9563	27.35
50.5	15,497,290	696,837	0.0450	0.9550	26.15
51.5	14,054,363	824,847	0.0587	0.9413	24.98
52.5	12,060,284	852,285	0.0707	0.9293	23.51
53.5	10,151,802	697,404	0.0687	0.9313	21.85
54.5	8,946,630	604,521	0.0676	0.9324	20.35
55.5	8,166,395	913,902	0.1119	0.8881	18.97
56.5	6,382,379	506,127	0.0793	0.9207	16.85
57.5	5,975,548	502,832	0.0841	0.9159	15.52
58.5	5,536,885	512,759	0.0926	0.9074	14.21
59.5	5,136,726	518,593	0.1010	0.8990	12.89
60.5	4,718,645	505,774	0.1072	0.8928	11.59
61.5	4,334,671	472,887	0.1091	0.8909	10.35
62.5	4,039,718	444,599	0.1101	0.8899	9.22
63.5	3,695,935	430,496	0.1165	0.8835	8.21
64.5	3,386,783	414,851	0.1225	0.8775	7.25
65.5	3,101,944	381,182	0.1229	0.8771	6.36
66.5	2,835,719	351,936	0.1241	0.8759	5.58
67.5	2,561,030	330,785	0.1292	0.8708	4.89
68.5	2,317,148	312,301	0.1348	0.8652	4.26
69.5	2,087,111	287,239	0.1376	0.8624	3.68
70.5	1,852,333	257,480	0.1390	0.8610	3.18
71.5	1,687,458	238,814	0.1415	0.8585	2.73
72.5	1,448,644	217,374	0.1501	0.8499	2.35
73.5	1,231,270	191,085	0.1552	0.8448	2.00
74.5	1,040,185	179,897	0.1729	0.8271	1.69
75.5	860,288	148,106	0.1722	0.8278	1.39
76.5	712,182	126,276	0.1773	0.8227	1.15
77.5	585,906	112,380	0.1918	0.8082	0.95
78.5	473,526	92,918	0.1962	0.8038	0.77

ENBRIDGE GAS DISTRIBUTION, INC

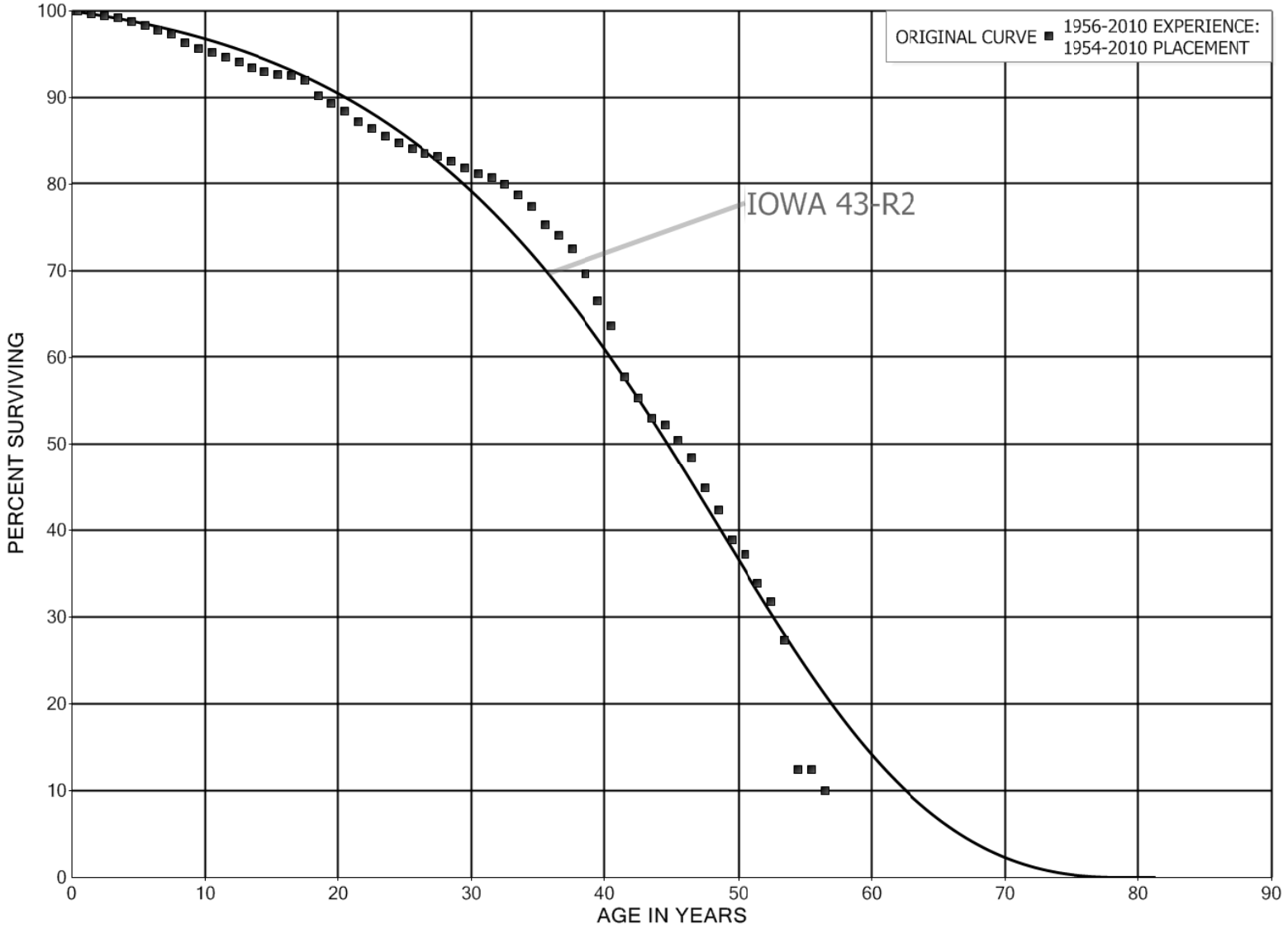
ACCOUNT 473.00 - SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1884-2010 EXPERIENCE BAND 1956-2010

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	380,608	82,595	0.2170	0.7830	0.62
80.5	298,013	72,558	0.2435	0.7565	0.48
81.5	225,455	57,074	0.2532	0.7468	0.37
82.5	168,381	48,442	0.2877	0.7123	0.27
83.5	119,939	37,907	0.3161	0.6839	0.19
84.5	82,032	29,403	0.3584	0.6416	0.13
85.5	52,629	19,594	0.3723	0.6277	0.09
86.5	33,035	18,143	0.5492	0.4508	0.05
87.5	14,892	8,221	0.5520	0.4480	0.02
88.5	6,671	6,117	0.9170	0.0830	0.01
89.5	554	554	1.0000		0.00
90.5					

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 475.10 - MAINS - CAST IRON
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

ACCOUNT 475.10 - MAINS - CAST IRON

ORIGINAL LIFE TABLE

PLACEMENT BAND 1954-2010 EXPERIENCE BAND 1956-2010

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	740,739	109	0.0001	0.9999	100.00
0.5	43,970,493	154,555	0.0035	0.9965	99.99
1.5	49,850,413	103,903	0.0021	0.9979	99.63
2.5	49,746,510	135,187	0.0027	0.9973	99.43
3.5	49,611,323	195,480	0.0039	0.9961	99.16
4.5	49,415,843	219,128	0.0044	0.9956	98.77
5.5	49,184,242	280,469	0.0057	0.9943	98.33
6.5	48,903,773	249,936	0.0051	0.9949	97.77
7.5	48,653,837	491,700	0.0101	0.9899	97.27
8.5	48,161,196	336,938	0.0070	0.9930	96.28
9.5	47,824,258	243,678	0.0051	0.9949	95.61
10.5	47,580,580	228,922	0.0048	0.9952	95.12
11.5	47,351,658	310,045	0.0065	0.9935	94.67
12.5	47,041,613	303,741	0.0065	0.9935	94.05
13.5	46,737,872	246,551	0.0053	0.9947	93.44
14.5	46,491,321	167,836	0.0036	0.9964	92.95
15.5	46,323,485	77,976	0.0017	0.9983	92.61
16.5	46,245,509	271,625	0.0059	0.9941	92.45
17.5	45,973,884	885,740	0.0193	0.9807	91.91
18.5	45,088,144	440,814	0.0098	0.9902	90.14
19.5	44,647,330	411,814	0.0092	0.9908	89.26
20.5	44,235,516	608,825	0.0138	0.9862	88.44
21.5	43,626,691	439,115	0.0101	0.9899	87.22
22.5	43,187,576	437,759	0.0101	0.9899	86.34
23.5	42,749,817	395,247	0.0092	0.9908	85.47
24.5	42,354,570	324,649	0.0077	0.9923	84.68
25.5	42,029,921	236,097	0.0056	0.9944	84.03
26.5	41,793,824	165,158	0.0040	0.9960	83.55
27.5	41,117,753	276,901	0.0067	0.9933	83.22
28.5	40,818,689	427,531	0.0105	0.9895	82.66
29.5	40,391,158	292,913	0.0073	0.9927	81.80
30.5	40,098,245	253,368	0.0063	0.9937	81.20
31.5	39,844,877	359,890	0.0090	0.9910	80.69
32.5	39,484,987	623,712	0.0158	0.9842	79.96
33.5	38,842,264	634,455	0.0163	0.9837	78.70
34.5	38,207,809	1,042,351	0.0273	0.9727	77.41
35.5	37,165,458	588,843	0.0158	0.9842	75.30
36.5	36,576,615	791,289	0.0216	0.9784	74.11
37.5	35,785,326	1,439,346	0.0402	0.9598	72.51
38.5	34,345,980	1,501,252	0.0437	0.9563	69.59

ENBRIDGE GAS DISTRIBUTION, INC

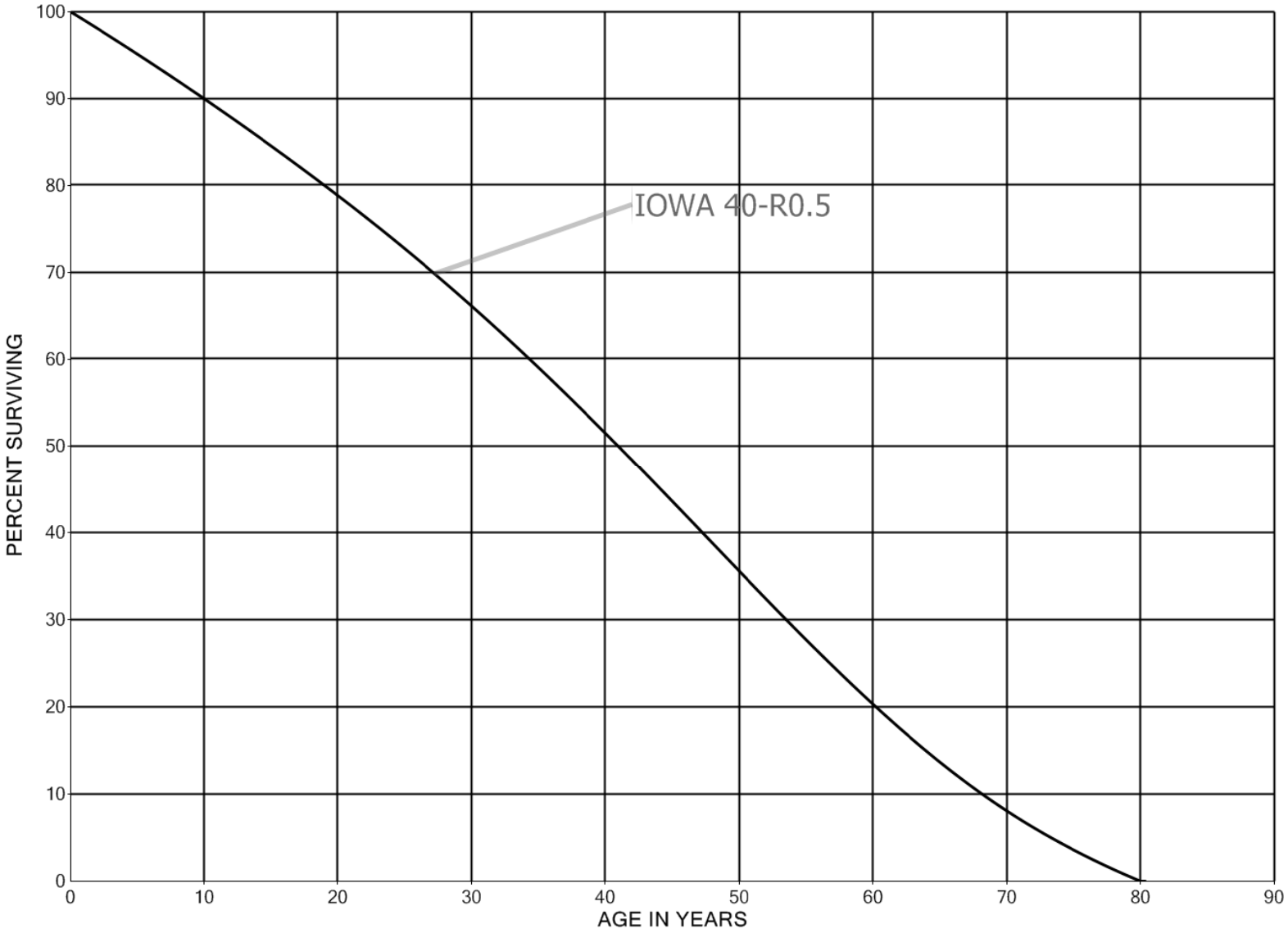
ACCOUNT 475.10 - MAINS - CAST IRON

ORIGINAL LIFE TABLE, CONT.

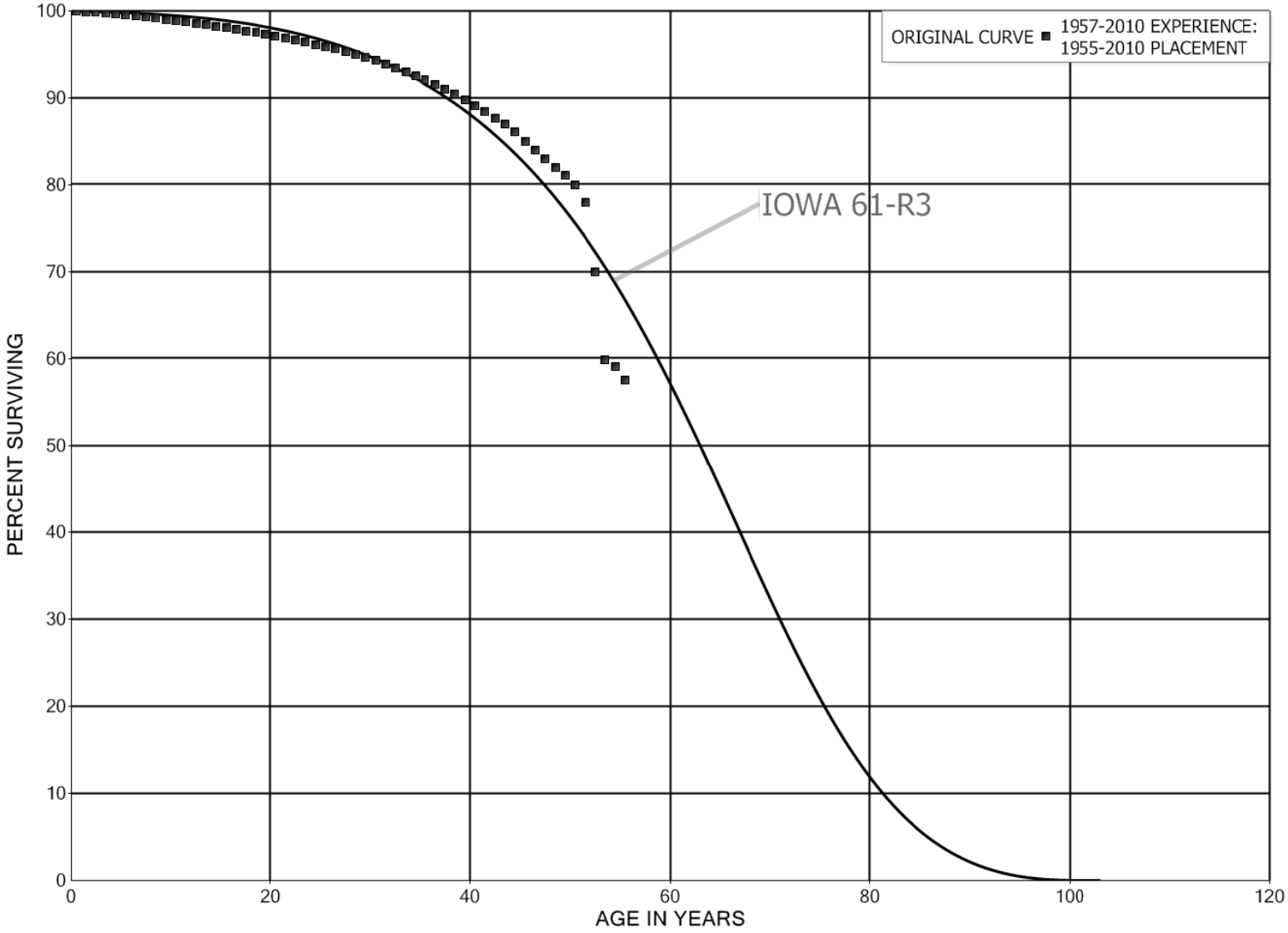
PLACEMENT BAND 1954-2010 EXPERIENCE BAND 1956-2010

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	32,844,728	1,462,644	0.0445	0.9555	66.55
40.5	31,382,084	2,909,578	0.0927	0.9073	63.58
41.5	28,472,506	1,186,546	0.0417	0.9583	57.69
42.5	27,285,960	1,174,280	0.0430	0.9570	55.29
43.5	26,111,680	386,000	0.0148	0.9852	52.91
44.5	25,725,680	849,323	0.0330	0.9670	52.12
45.5	24,876,357	977,323	0.0393	0.9607	50.40
46.5	23,899,034	1,777,604	0.0744	0.9256	48.42
47.5	22,121,430	1,267,794	0.0573	0.9427	44.82
48.5	20,853,636	1,713,508	0.0822	0.9178	42.25
49.5	19,140,128	795,540	0.0416	0.9584	38.78
50.5	18,344,588	1,629,550	0.0888	0.9112	37.17
51.5	16,715,038	1,080,112	0.0646	0.9354	33.87
52.5	15,633,787	2,155,367	0.1379	0.8621	31.68
53.5	13,478,420	7,362,048	0.5462	0.4538	27.31
54.5	6,034,475		0.0000	1.0000	12.39
55.5	6,034,475	1,209,969	0.2005	0.7995	12.39
56.5					9.91

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 475.20 - MAINS - OTHER
SMOOTH SURVIVOR CURVE



ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 475.21 - MAINS - COATED STEEL
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

ACCOUNT 475.21 - MAINS - COATED STEEL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1955-2010 EXPERIENCE BAND 1957-2010

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	1,058,291,489	404,414	0.0004	0.9996	100.00
0.5	1,035,389,475	817,537	0.0008	0.9992	99.96
1.5	1,011,488,022	834,345	0.0008	0.9992	99.88
2.5	970,381,479	941,814	0.0010	0.9990	99.80
3.5	903,745,645	946,882	0.0010	0.9990	99.70
4.5	855,906,164	954,851	0.0011	0.9989	99.60
5.5	833,360,515	987,652	0.0012	0.9988	99.49
6.5	815,825,212	982,287	0.0012	0.9988	99.37
7.5	800,945,997	1,001,116	0.0012	0.9988	99.25
8.5	755,332,193	1,049,527	0.0014	0.9986	99.13
9.5	716,521,345	1,117,375	0.0016	0.9984	98.99
10.5	690,165,292	1,141,234	0.0017	0.9983	98.83
11.5	660,367,486	1,146,151	0.0017	0.9983	98.67
12.5	634,259,392	1,021,113	0.0016	0.9984	98.50
13.5	619,809,037	1,009,052	0.0016	0.9984	98.34
14.5	592,562,946	968,342	0.0016	0.9984	98.18
15.5	576,020,338	1,121,623	0.0019	0.9981	98.02
16.5	557,785,764	1,073,334	0.0019	0.9981	97.83
17.5	541,488,036	965,221	0.0018	0.9982	97.64
18.5	484,101,306	937,361	0.0019	0.9981	97.47
19.5	415,628,665	845,974	0.0020	0.9980	97.28
20.5	383,495,695	935,905	0.0024	0.9976	97.08
21.5	352,422,862	828,094	0.0023	0.9977	96.84
22.5	342,004,936	876,381	0.0026	0.9974	96.62
23.5	315,167,354	830,733	0.0026	0.9974	96.37
24.5	305,566,518	845,465	0.0028	0.9972	96.11
25.5	295,941,117	842,655	0.0028	0.9972	95.85
26.5	289,432,531	859,555	0.0030	0.9970	95.58
27.5	279,137,507	959,048	0.0034	0.9966	95.29
28.5	270,841,245	978,538	0.0036	0.9964	94.96
29.5	262,753,791	1,046,131	0.0040	0.9960	94.62
30.5	253,225,718	1,078,032	0.0043	0.9957	94.24
31.5	246,379,341	1,102,247	0.0045	0.9955	93.84
32.5	240,158,883	1,101,978	0.0046	0.9954	93.42
33.5	232,791,795	1,144,734	0.0049	0.9951	92.99
34.5	227,979,857	1,196,574	0.0052	0.9948	92.54
35.5	219,816,954	1,182,047	0.0054	0.9946	92.05
36.5	207,550,843	1,295,275	0.0062	0.9938	91.56
37.5	189,471,710	1,191,293	0.0063	0.9937	90.99
38.5	174,783,175	1,227,928	0.0070	0.9930	90.41

ENBRIDGE GAS DISTRIBUTION, INC

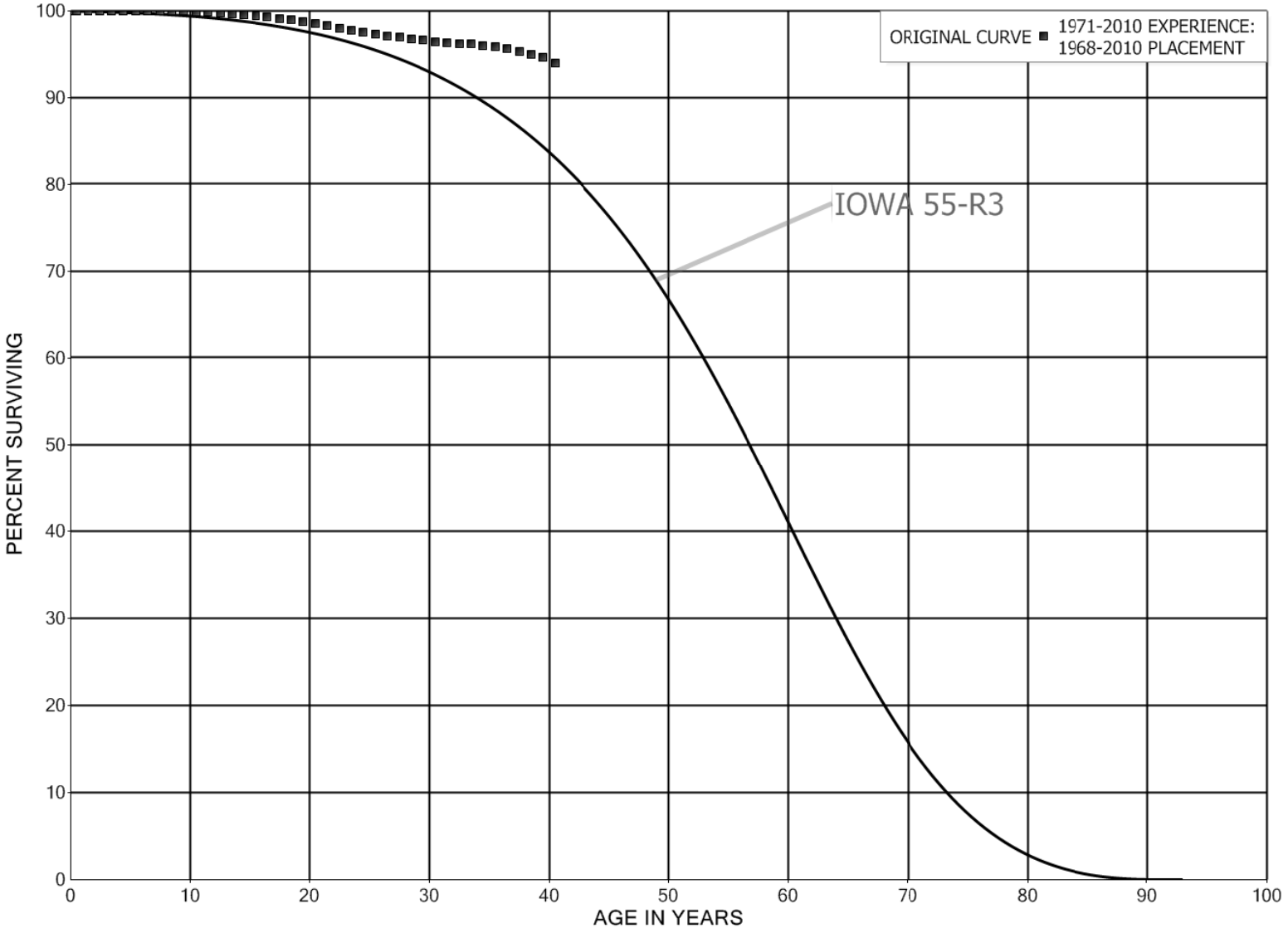
ACCOUNT 475.21 - MAINS - COATED STEEL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1955-2010 EXPERIENCE BAND 1957-2010

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	153,766,918	1,198,273	0.0078	0.9922	89.78
40.5	138,981,310	1,102,638	0.0079	0.9921	89.08
41.5	127,477,842	1,068,075	0.0084	0.9916	88.37
42.5	117,570,184	976,951	0.0083	0.9917	87.63
43.5	107,287,440	1,055,960	0.0098	0.9902	86.90
44.5	97,256,712	1,228,793	0.0126	0.9874	86.05
45.5	90,980,959	1,113,958	0.0122	0.9878	84.96
46.5	84,313,921	1,028,562	0.0122	0.9878	83.92
47.5	70,552,434	818,433	0.0116	0.9884	82.90
48.5	59,076,306	654,797	0.0111	0.9889	81.94
49.5	48,227,666	664,830	0.0138	0.9862	81.03
50.5	39,082,414	932,123	0.0239	0.9761	79.91
51.5	4,881,895	506,698	0.1038	0.8962	78.00
52.5	2,314,675	332,842	0.1438	0.8562	69.91
53.5	480,277	6,570	0.0137	0.9863	59.86
54.5	22,924	580	0.0253	0.9747	59.04
55.5					57.54

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 475.30 - MAINS - PLASTIC
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

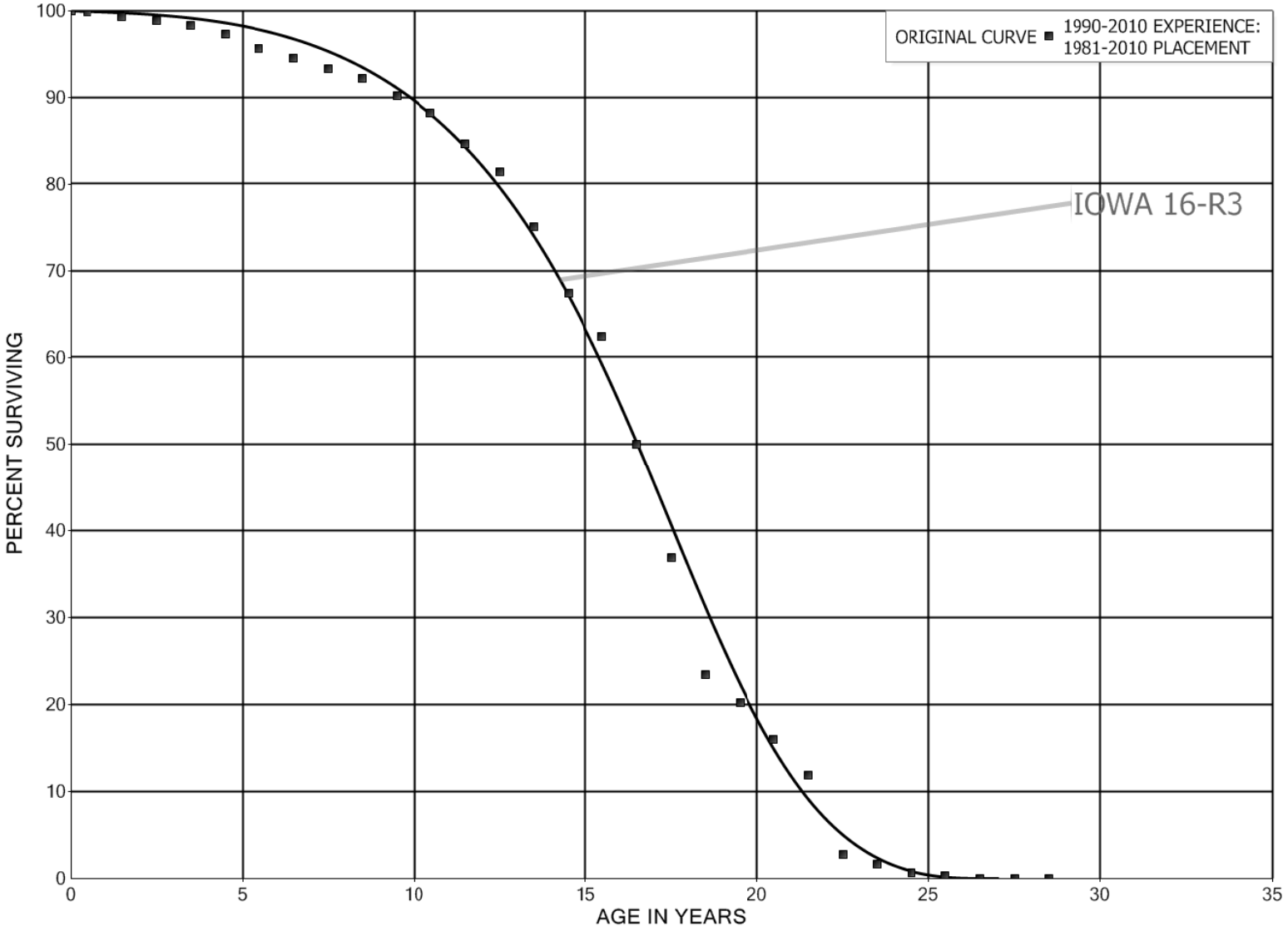
ACCOUNT 475.30 - MAINS - PLASTIC

ORIGINAL LIFE TABLE

PLACEMENT BAND 1968-2010 EXPERIENCE BAND 1971-2010

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	1,336,246,520	10,332	0.0000	1.0000	100.00
0.5	1,239,324,408	18,718	0.0000	1.0000	100.00
1.5	1,164,729,603	27,921	0.0000	1.0000	100.00
2.5	1,092,276,846	51,182	0.0000	1.0000	100.00
3.5	986,429,280	70,660	0.0001	0.9999	99.99
4.5	876,516,101	73,027	0.0001	0.9999	99.98
5.5	817,732,310	88,878	0.0001	0.9999	99.98
6.5	784,720,936	129,121	0.0002	0.9998	99.96
7.5	730,696,352	161,690	0.0002	0.9998	99.95
8.5	678,167,405	202,031	0.0003	0.9997	99.93
9.5	610,032,572	243,127	0.0004	0.9996	99.90
10.5	552,482,879	288,157	0.0005	0.9995	99.86
11.5	496,326,536	327,705	0.0007	0.9993	99.80
12.5	442,576,913	366,376	0.0008	0.9992	99.74
13.5	402,346,609	424,246	0.0011	0.9989	99.66
14.5	358,461,979	460,455	0.0013	0.9987	99.55
15.5	320,917,087	489,563	0.0015	0.9985	99.42
16.5	294,816,165	502,117	0.0017	0.9983	99.27
17.5	271,512,490	487,659	0.0018	0.9982	99.10
18.5	250,728,482	513,988	0.0020	0.9980	98.92
19.5	225,341,724	509,825	0.0023	0.9977	98.72
20.5	204,887,033	527,597	0.0026	0.9974	98.50
21.5	179,318,252	539,362	0.0030	0.9970	98.24
22.5	162,720,038	461,651	0.0028	0.9972	97.95
23.5	144,125,037	325,193	0.0023	0.9977	97.67
24.5	131,060,178	258,215	0.0020	0.9980	97.45
25.5	118,973,598	226,169	0.0019	0.9981	97.26
26.5	105,095,874	191,940	0.0018	0.9982	97.07
27.5	91,990,196	167,052	0.0018	0.9982	96.90
28.5	77,263,569	114,456	0.0015	0.9985	96.72
29.5	66,976,975	104,848	0.0016	0.9984	96.58
30.5	43,396,939	48,779	0.0011	0.9989	96.43
31.5	30,805,463	29,741	0.0010	0.9990	96.32
32.5	22,960,456	23,597	0.0010	0.9990	96.22
33.5	16,726,707	20,568	0.0012	0.9988	96.13
34.5	11,488,964	18,989	0.0017	0.9983	96.01
35.5	7,020,404	16,457	0.0023	0.9977	95.85
36.5	3,202,285	11,660	0.0036	0.9964	95.62
37.5	620,686	1,956	0.0032	0.9968	95.28
38.5	211,164	910	0.0043	0.9957	94.98
39.5	32,396	208	0.0064	0.9936	94.57
40.5					93.96

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 476.00 - COMPANY NGV COMPRESSOR STATIONS
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

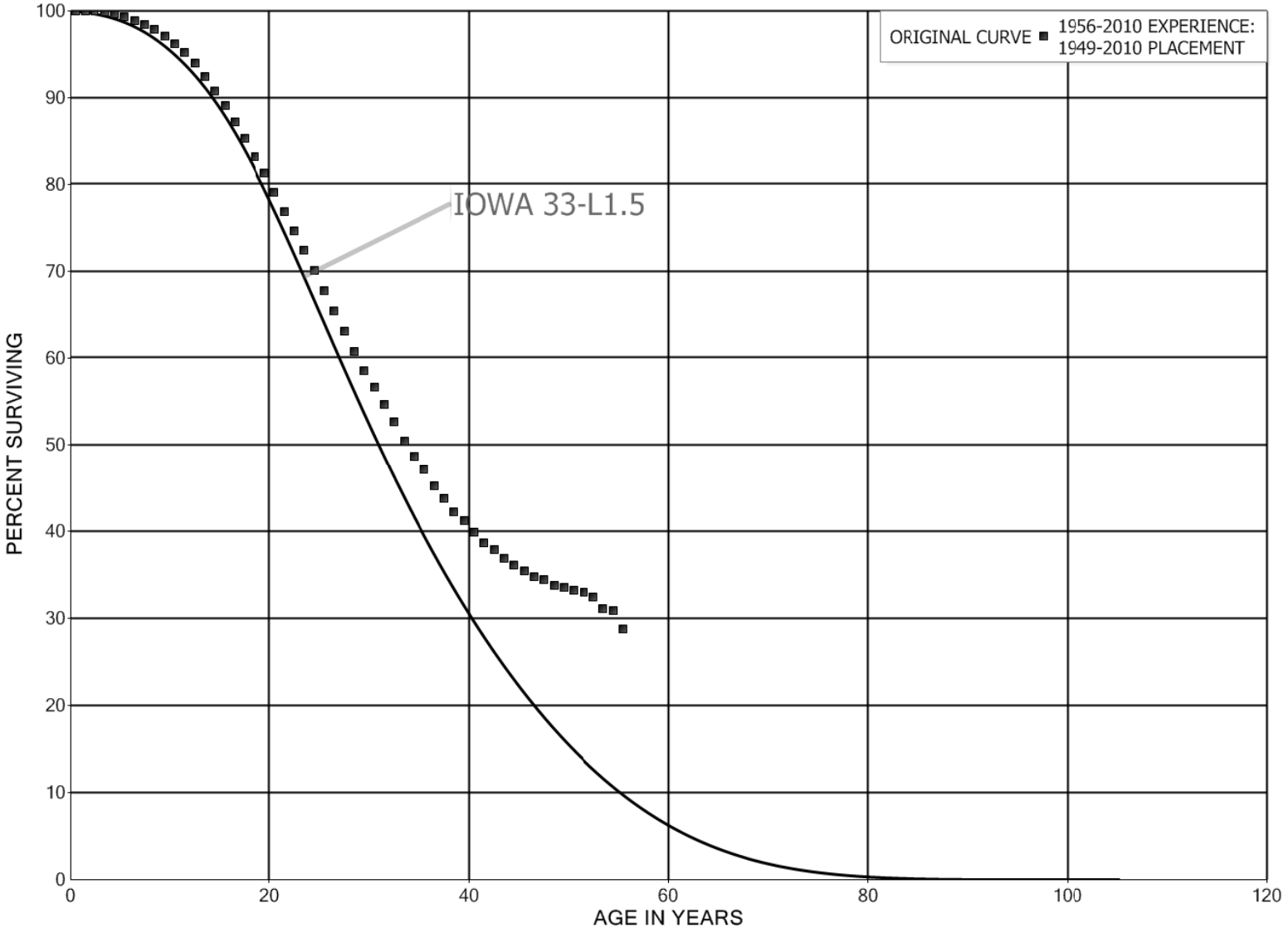
ACCOUNT 476.00 - COMPANY NGV COMPRESSOR STATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1981-2010 EXPERIENCE BAND 1990-2010

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	12,263,276	24,888	0.0020	0.9980	100.00
0.5	12,264,956	58,913	0.0048	0.9952	99.80
1.5	12,762,268	58,370	0.0046	0.9954	99.32
2.5	14,162,551	83,947	0.0059	0.9941	98.86
3.5	14,295,500	146,896	0.0103	0.9897	98.28
4.5	14,391,389	244,642	0.0170	0.9830	97.27
5.5	13,893,538	156,361	0.0113	0.9887	95.61
6.5	13,890,926	186,594	0.0134	0.9866	94.54
7.5	13,704,332	163,778	0.0120	0.9880	93.27
8.5	13,588,849	299,765	0.0221	0.9779	92.15
9.5	13,012,672	280,787	0.0216	0.9784	90.12
10.5	12,731,885	509,643	0.0400	0.9600	88.18
11.5	12,175,962	473,925	0.0389	0.9611	84.65
12.5	11,608,095	896,945	0.0773	0.9227	81.35
13.5	10,524,587	1,070,362	0.1017	0.8983	75.07
14.5	9,425,485	707,624	0.0751	0.9249	67.43
15.5	8,705,495	1,726,358	0.1983	0.8017	62.37
16.5	6,725,296	1,763,917	0.2623	0.7377	50.00
17.5	4,961,379	1,816,113	0.3661	0.6339	36.89
18.5	3,145,266	434,552	0.1382	0.8618	23.38
19.5	1,860,198	388,828	0.2090	0.7910	20.15
20.5	1,471,370	377,218	0.2564	0.7436	15.94
21.5	1,094,152	843,330	0.7708	0.2292	11.85
22.5	250,822	102,286	0.4078	0.5922	2.72
23.5	148,536	90,269	0.6077	0.3923	1.61
24.5	58,267	32,475	0.5573	0.4427	0.63
25.5	25,792	25,616	0.9932	0.0068	0.28
26.5	176		0.0000	1.0000	0.00
27.5	176	176	1.0000		0.00
28.5					

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 477.00 - MEASURING AND REGULATING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

ACCOUNT 477.00 - MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1949-2010 EXPERIENCE BAND 1956-2010

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	357,687,541	3,757	0.0000	1.0000	100.00
0.5	346,522,689	59,531	0.0002	0.9998	100.00
1.5	331,578,809	214,481	0.0006	0.9994	99.98
2.5	313,148,728	407,592	0.0013	0.9987	99.92
3.5	297,596,715	656,958	0.0022	0.9978	99.79
4.5	283,286,281	873,982	0.0031	0.9969	99.57
5.5	269,900,146	1,029,303	0.0038	0.9962	99.26
6.5	252,746,080	1,245,959	0.0049	0.9951	98.88
7.5	238,102,009	1,462,175	0.0061	0.9939	98.39
8.5	226,203,152	1,679,114	0.0074	0.9926	97.79
9.5	214,881,395	1,872,106	0.0087	0.9913	97.06
10.5	194,708,145	2,145,539	0.0110	0.9890	96.22
11.5	174,980,371	2,270,874	0.0130	0.9870	95.16
12.5	158,379,755	2,607,070	0.0165	0.9835	93.92
13.5	145,340,746	2,604,285	0.0179	0.9821	92.38
14.5	129,909,191	2,375,435	0.0183	0.9817	90.72
15.5	115,489,769	2,407,387	0.0208	0.9792	89.06
16.5	102,581,751	2,275,738	0.0222	0.9778	87.21
17.5	91,363,132	2,230,558	0.0244	0.9756	85.27
18.5	82,421,150	1,923,004	0.0233	0.9767	83.19
19.5	71,114,704	1,872,702	0.0263	0.9737	81.25
20.5	57,948,356	1,647,335	0.0284	0.9716	79.11
21.5	50,142,566	1,434,269	0.0286	0.9714	76.86
22.5	43,459,479	1,319,922	0.0304	0.9696	74.66
23.5	35,952,636	1,137,955	0.0317	0.9683	72.39
24.5	31,593,201	1,048,739	0.0332	0.9668	70.10
25.5	26,795,807	953,515	0.0356	0.9644	67.78
26.5	21,565,537	746,843	0.0346	0.9654	65.36
27.5	19,085,794	718,377	0.0376	0.9624	63.10
28.5	16,663,808	600,911	0.0361	0.9639	60.73
29.5	14,268,230	477,906	0.0335	0.9665	58.54
30.5	12,340,837	432,892	0.0351	0.9649	56.57
31.5	10,699,120	392,320	0.0367	0.9633	54.59
32.5	8,975,154	365,101	0.0407	0.9593	52.59
33.5	7,559,823	268,254	0.0355	0.9645	50.45
34.5	6,689,923	222,519	0.0333	0.9667	48.66
35.5	5,747,242	231,682	0.0403	0.9597	47.04
36.5	4,850,540	157,853	0.0325	0.9675	45.14
37.5	4,341,257	145,347	0.0335	0.9665	43.68
38.5	3,346,909	84,663	0.0253	0.9747	42.21

ENBRIDGE GAS DISTRIBUTION, INC

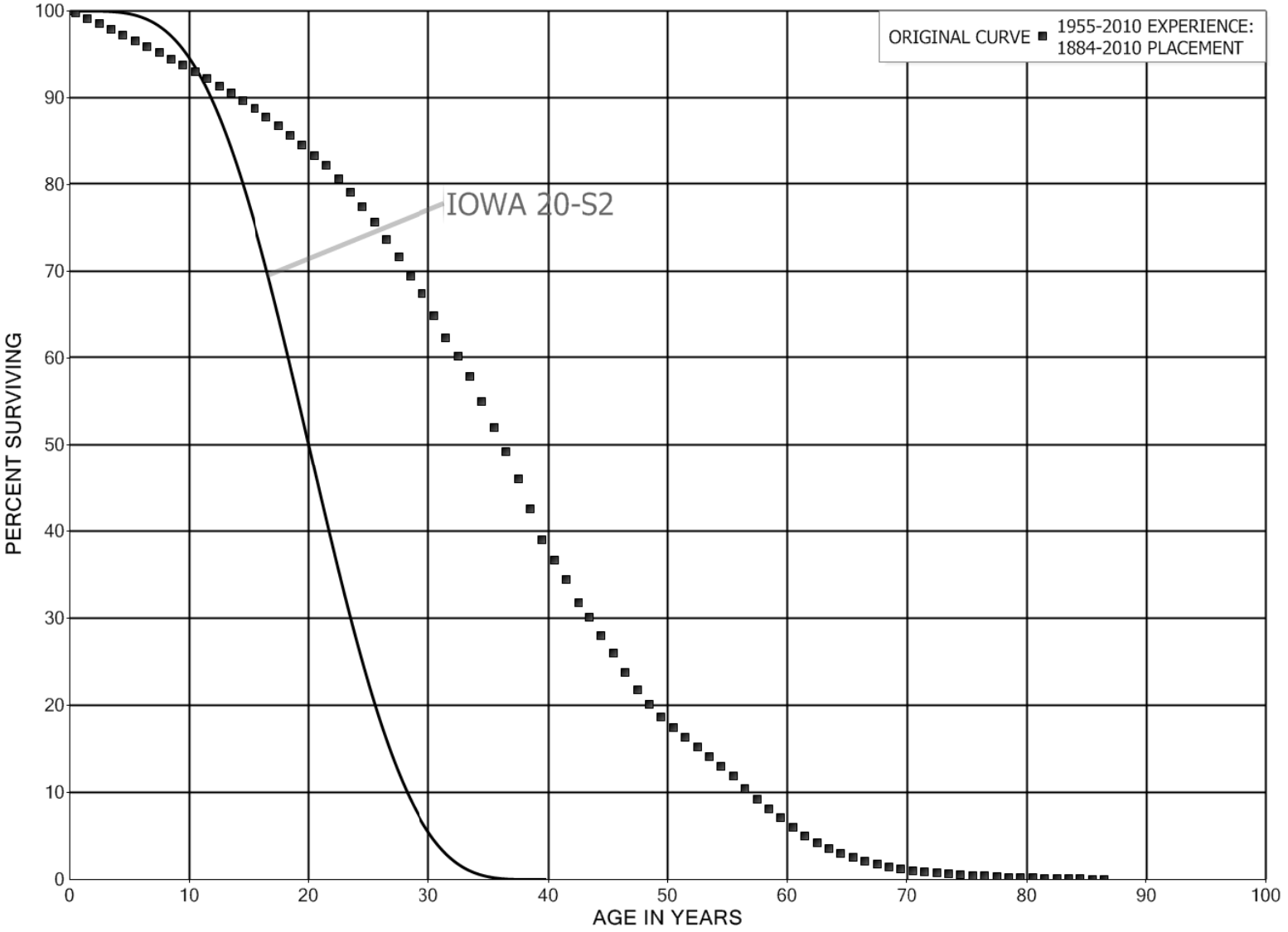
ACCOUNT 477.00 - MEASURING AND REGULATING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1949-2010 EXPERIENCE BAND 1956-2010

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	2,971,277	92,169	0.0310	0.9690	41.15
40.5	2,698,616	84,771	0.0314	0.9686	39.87
41.5	2,380,258	49,005	0.0206	0.9794	38.62
42.5	2,190,652	58,285	0.0266	0.9734	37.82
43.5	1,921,637	40,638	0.0211	0.9789	36.82
44.5	1,790,149	31,591	0.0176	0.9824	36.04
45.5	1,605,429	28,376	0.0177	0.9823	35.40
46.5	1,490,754	16,284	0.0109	0.9891	34.77
47.5	1,329,353	24,060	0.0181	0.9819	34.40
48.5	1,158,969	10,221	0.0088	0.9912	33.77
49.5	1,081,624	11,101	0.0103	0.9897	33.47
50.5	889,187	5,081	0.0057	0.9943	33.13
51.5	859,650	13,078	0.0152	0.9848	32.94
52.5	638,532	26,556	0.0416	0.9584	32.44
53.5	133,696	1,131	0.0085	0.9915	31.09
54.5	120,158	8,207	0.0683	0.9317	30.83
55.5					28.72

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 478.00 - METERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

ACCOUNT 478.00 - METERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1884-2010 EXPERIENCE BAND 1955-2010

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	425,763,732	1,258,863	0.0030	0.9970	100.00
0.5	407,881,862	2,433,290	0.0060	0.9940	99.70
1.5	385,615,458	2,387,804	0.0062	0.9938	99.11
2.5	355,539,690	2,316,016	0.0065	0.9935	98.50
3.5	329,227,993	2,186,011	0.0066	0.9934	97.85
4.5	305,693,793	2,078,385	0.0068	0.9932	97.20
5.5	288,835,886	2,032,871	0.0070	0.9930	96.54
6.5	278,480,088	2,041,481	0.0073	0.9927	95.86
7.5	262,498,009	1,975,411	0.0075	0.9925	95.16
8.5	249,389,425	1,971,369	0.0079	0.9921	94.45
9.5	235,332,099	1,969,694	0.0084	0.9916	93.70
10.5	218,766,823	1,859,055	0.0085	0.9915	92.91
11.5	205,692,591	1,809,745	0.0088	0.9912	92.12
12.5	191,513,277	1,730,325	0.0090	0.9910	91.31
13.5	176,445,065	1,655,061	0.0094	0.9906	90.49
14.5	161,808,198	1,712,154	0.0106	0.9894	89.64
15.5	145,123,781	1,640,460	0.0113	0.9887	88.69
16.5	131,024,772	1,504,820	0.0115	0.9885	87.69
17.5	121,003,051	1,471,287	0.0122	0.9878	86.68
18.5	112,257,817	1,537,937	0.0137	0.9863	85.63
19.5	101,050,228	1,339,394	0.0133	0.9867	84.46
20.5	92,669,587	1,341,334	0.0145	0.9855	83.34
21.5	83,348,003	1,546,088	0.0185	0.9815	82.13
22.5	70,271,393	1,390,010	0.0198	0.9802	80.61
23.5	60,464,033	1,253,859	0.0207	0.9793	79.01
24.5	52,969,736	1,226,982	0.0232	0.9768	77.37
25.5	46,380,293	1,203,351	0.0259	0.9741	75.58
26.5	40,342,359	1,094,045	0.0271	0.9729	73.62
27.5	35,296,457	1,081,265	0.0306	0.9694	71.62
28.5	30,226,828	905,092	0.0299	0.9701	69.43
29.5	26,574,846	987,702	0.0372	0.9628	67.35
30.5	22,403,428	887,730	0.0396	0.9604	64.85
31.5	19,142,819	631,898	0.0330	0.9670	62.28
32.5	17,677,321	689,490	0.0390	0.9610	60.22
33.5	15,975,749	801,025	0.0501	0.9499	57.87
34.5	13,742,987	768,972	0.0560	0.9440	54.97
35.5	11,687,660	604,890	0.0518	0.9482	51.90
36.5	10,433,086	691,146	0.0662	0.9338	49.21
37.5	8,847,585	666,145	0.0753	0.9247	45.95
38.5	7,357,015	603,827	0.0821	0.9179	42.49

ENBRIDGE GAS DISTRIBUTION, INC

ACCOUNT 478.00 - METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1884-2010 EXPERIENCE BAND 1955-2010

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	6,153,200	375,163	0.0610	0.9390	39.00
40.5	5,834,470	361,501	0.0620	0.9380	36.62
41.5	5,519,488	422,537	0.0766	0.9234	34.36
42.5	5,166,636	264,963	0.0513	0.9487	31.73
43.5	5,099,105	369,182	0.0724	0.9276	30.10
44.5	4,889,234	346,777	0.0709	0.9291	27.92
45.5	4,687,503	390,843	0.0834	0.9166	25.94
46.5	4,420,692	376,422	0.0852	0.9148	23.78
47.5	4,192,120	318,725	0.0760	0.9240	21.75
48.5	3,992,042	300,662	0.0753	0.9247	20.10
49.5	3,785,237	247,152	0.0653	0.9347	18.58
50.5	3,616,757	228,951	0.0633	0.9367	17.37
51.5	3,469,726	222,964	0.0643	0.9357	16.27
52.5	3,311,638	254,610	0.0769	0.9231	15.23
53.5	3,101,666	249,404	0.0804	0.9196	14.05
54.5	2,895,762	254,517	0.0879	0.9121	12.92
55.5	2,675,640	309,319	0.1156	0.8844	11.79
56.5	2,406,573	290,227	0.1206	0.8794	10.43
57.5	2,148,664	254,855	0.1186	0.8814	9.17
58.5	1,944,416	233,197	0.1199	0.8801	8.08
59.5	1,754,608	282,590	0.1611	0.8389	7.11
60.5	1,525,928	245,410	0.1608	0.8392	5.97
61.5	1,326,294	227,367	0.1714	0.8286	5.01
62.5	1,141,233	180,500	0.1582	0.8418	4.15
63.5	1,007,953	159,894	0.1586	0.8414	3.49
64.5	898,416	142,371	0.1585	0.8415	2.94
65.5	808,345	126,709	0.1568	0.8432	2.47
66.5	710,700	132,979	0.1871	0.8129	2.09
67.5	610,395	109,956	0.1801	0.8199	1.70
68.5	531,419	85,823	0.1615	0.8385	1.39
69.5	465,306	77,139	0.1658	0.8342	1.17
70.5	423,005	58,462	0.1382	0.8618	0.97
71.5	364,543	53,952	0.1480	0.8520	0.84
72.5	310,591	42,753	0.1377	0.8623	0.71
73.5	267,838	40,058	0.1496	0.8504	0.62
74.5	227,780	34,702	0.1523	0.8477	0.52
75.5	193,078	36,004	0.1865	0.8135	0.44
76.5	157,074	29,823	0.1899	0.8101	0.36
77.5	127,251	27,801	0.2185	0.7815	0.29
78.5	99,450	24,106	0.2424	0.7576	0.23

ENBRIDGE GAS DISTRIBUTION, INC

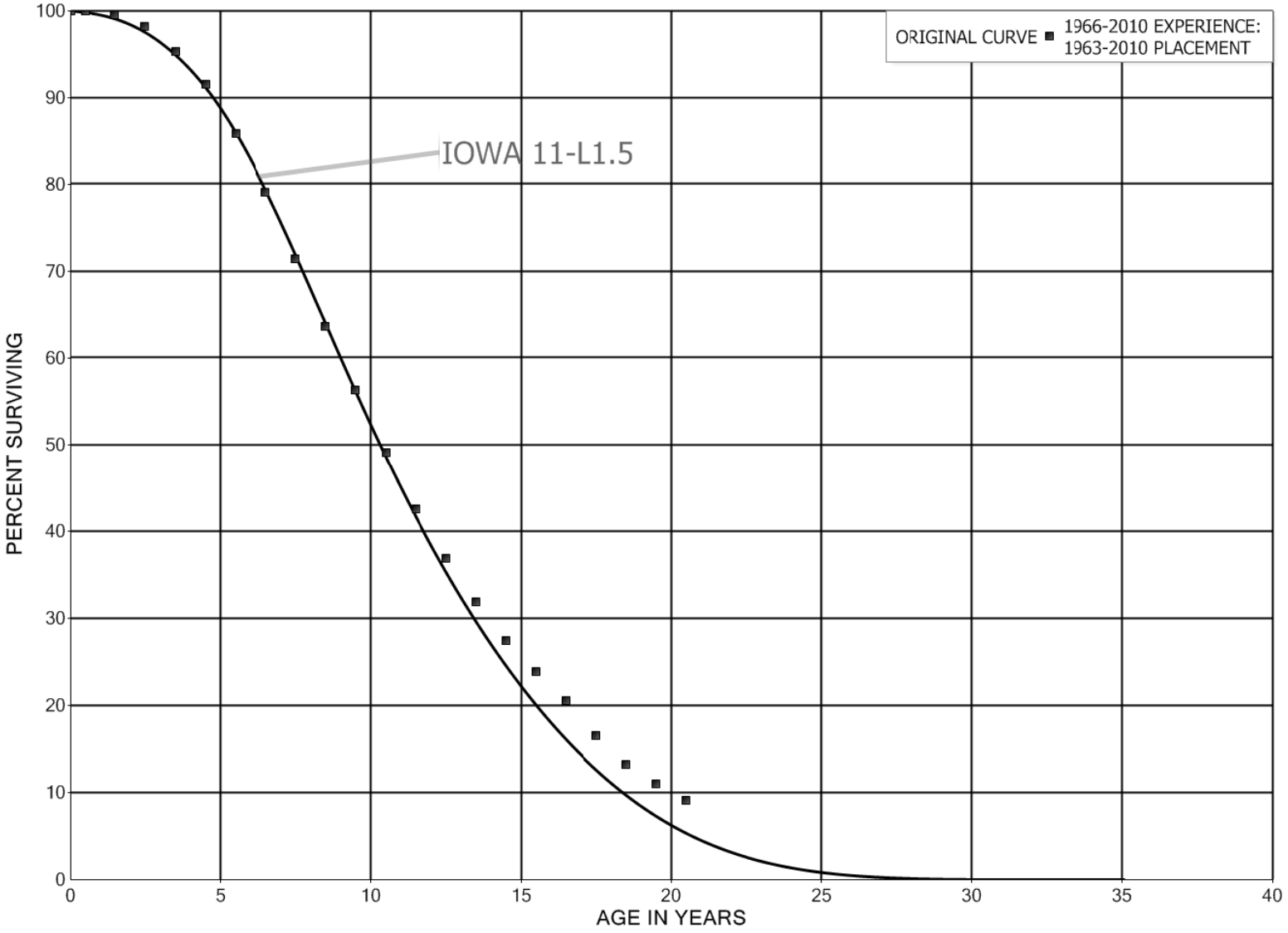
ACCOUNT 478.00 - METERS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1884-2010 EXPERIENCE BAND 1955-2010

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	75,344	21,313	0.2829	0.7171	0.17
80.5	54,031	18,503	0.3425	0.6575	0.12
81.5	35,528	12,880	0.3625	0.6375	0.08
82.5	22,648	9,555	0.4219	0.5781	0.05
83.5	13,093	6,268	0.4787	0.5213	0.03
84.5	6,825	3,818	0.5594	0.4406	0.02
85.5	3,007	3,007	1.0000		0.01
86.5					

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 484.00 - TRANSPORTATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



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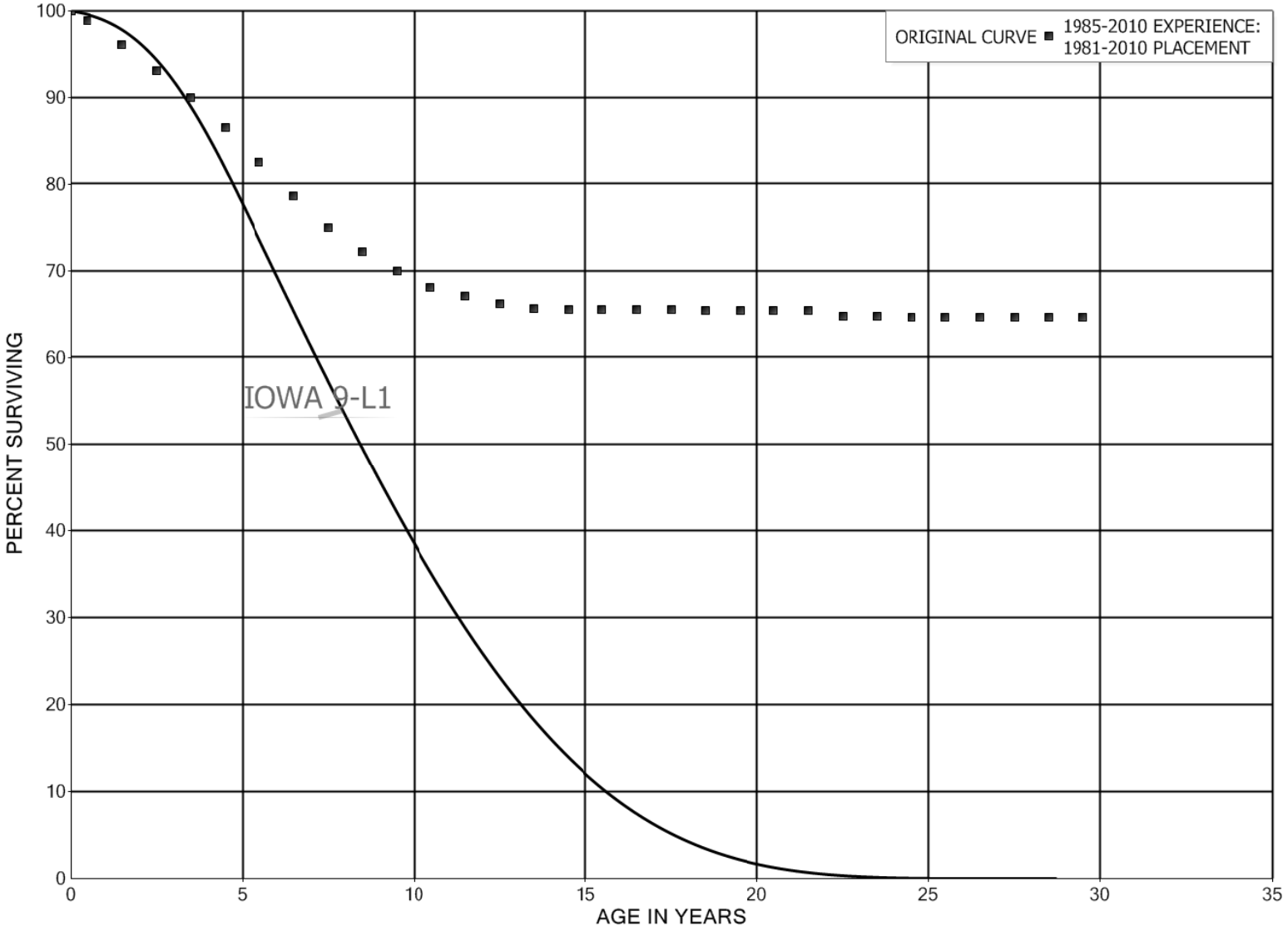
ACCOUNT 484.00 - TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1963-2010 EXPERIENCE BAND 1966-2010

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	57,649,901	13,785	0.0002	0.9998	100.00
0.5	54,236,125	231,517	0.0043	0.9957	99.98
1.5	47,056,161	661,362	0.0141	0.9859	99.55
2.5	37,773,408	1,098,989	0.0291	0.9709	98.15
3.5	31,055,632	1,231,872	0.0397	0.9603	95.29
4.5	22,534,427	1,401,751	0.0622	0.9378	91.51
5.5	19,451,970	1,540,517	0.0792	0.9208	85.82
6.5	16,404,907	1,594,792	0.0972	0.9028	79.03
7.5	13,978,665	1,512,165	0.1082	0.8918	71.34
8.5	12,090,043	1,398,554	0.1157	0.8843	63.63
9.5	10,422,729	1,341,126	0.1287	0.8713	56.27
10.5	8,784,896	1,168,981	0.1331	0.8669	49.03
11.5	7,335,752	985,333	0.1343	0.8657	42.50
12.5	5,729,698	780,445	0.1362	0.8638	36.79
13.5	4,205,310	574,473	0.1366	0.8634	31.78
14.5	3,411,959	452,210	0.1325	0.8675	27.44
15.5	2,790,084	381,062	0.1366	0.8634	23.80
16.5	2,033,393	397,734	0.1956	0.8044	20.55
17.5	1,502,163	307,093	0.2044	0.7956	16.53
18.5	1,154,291	194,724	0.1687	0.8313	13.15
19.5	587,655	99,507	0.1693	0.8307	10.93
20.5	411,024	47,811	0.1163	0.8837	9.08
21.5	166,652	19,642	0.1179	0.8821	8.03
22.5	105,072	7,864	0.0748	0.9252	7.08
23.5	57,516	98	0.0017	0.9983	6.55
24.5	48,850		0.0000	1.0000	6.54
25.5					6.54

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 484.01 - TRANSPORTATION - COMPANY NGV KITS
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

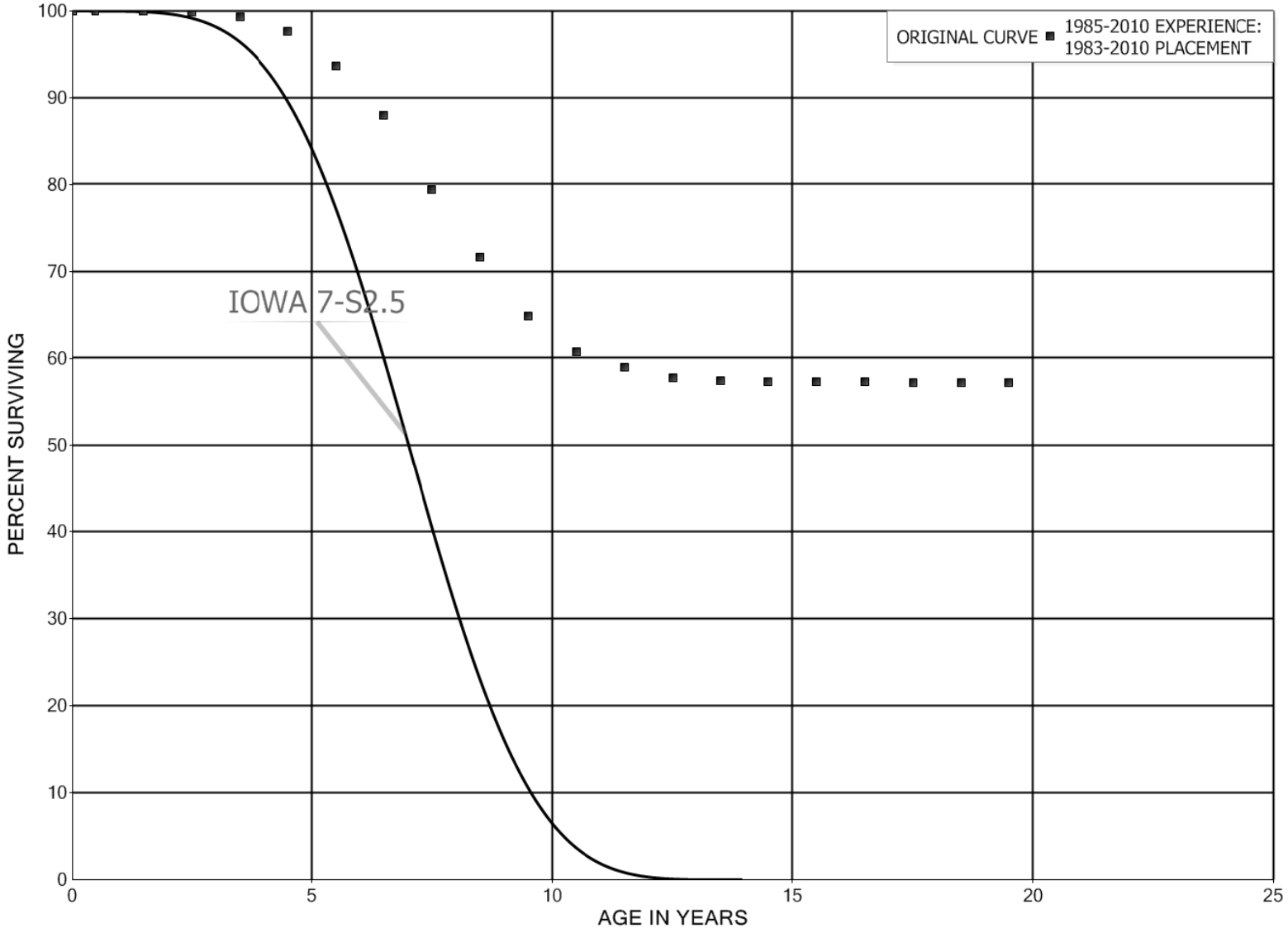
ACCOUNT 484.01 - TRANSPORTATION - COMPANY NGV KITS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1981-2010 EXPERIENCE BAND 1985-2010

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	10,242,293	120,350	0.0118	0.9882	100.00
0.5	9,853,650	278,236	0.0282	0.9718	98.82
1.5	9,351,567	284,883	0.0305	0.9695	96.03
2.5	8,714,687	296,092	0.0340	0.9660	93.11
3.5	8,107,790	309,729	0.0382	0.9618	89.95
4.5	6,706,969	311,845	0.0465	0.9535	86.51
5.5	5,962,972	280,472	0.0470	0.9530	82.49
6.5	5,468,263	252,652	0.0462	0.9538	78.61
7.5	5,048,235	192,170	0.0381	0.9619	74.98
8.5	4,605,030	137,027	0.0298	0.9702	72.12
9.5	4,468,003	123,739	0.0277	0.9723	69.98
10.5	4,335,218	61,764	0.0142	0.9858	68.04
11.5	4,010,922	52,427	0.0131	0.9869	67.07
12.5	3,607,526	29,105	0.0081	0.9919	66.19
13.5	3,307,585	5,823	0.0018	0.9982	65.66
14.5	2,749,198	1,056	0.0004	0.9996	65.54
15.5	2,316,010	704	0.0003	0.9997	65.52
16.5	1,666,703	673	0.0004	0.9996	65.50
17.5	1,273,332	600	0.0005	0.9995	65.47
18.5	1,000,043	257	0.0003	0.9997	65.44
19.5	767,641	56	0.0001	0.9999	65.42
20.5	509,682	524	0.0010	0.9990	65.42
21.5	357,268	3,404	0.0095	0.9905	65.35
22.5	258,996	187	0.0007	0.9993	64.73
23.5	122,232	116	0.0009	0.9991	64.68
24.5	101,282		0.0000	1.0000	64.62
25.5	62,056		0.0000	1.0000	64.62
26.5	22,625		0.0000	1.0000	64.62
27.5	11,193		0.0000	1.0000	64.62
28.5	4,556		0.0000	1.0000	64.62
29.5					64.62

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 484.02 - TRANSPORTATION - COMPANY NGV CYLINDERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ENBRIDGE GAS DISTRIBUTION, INC

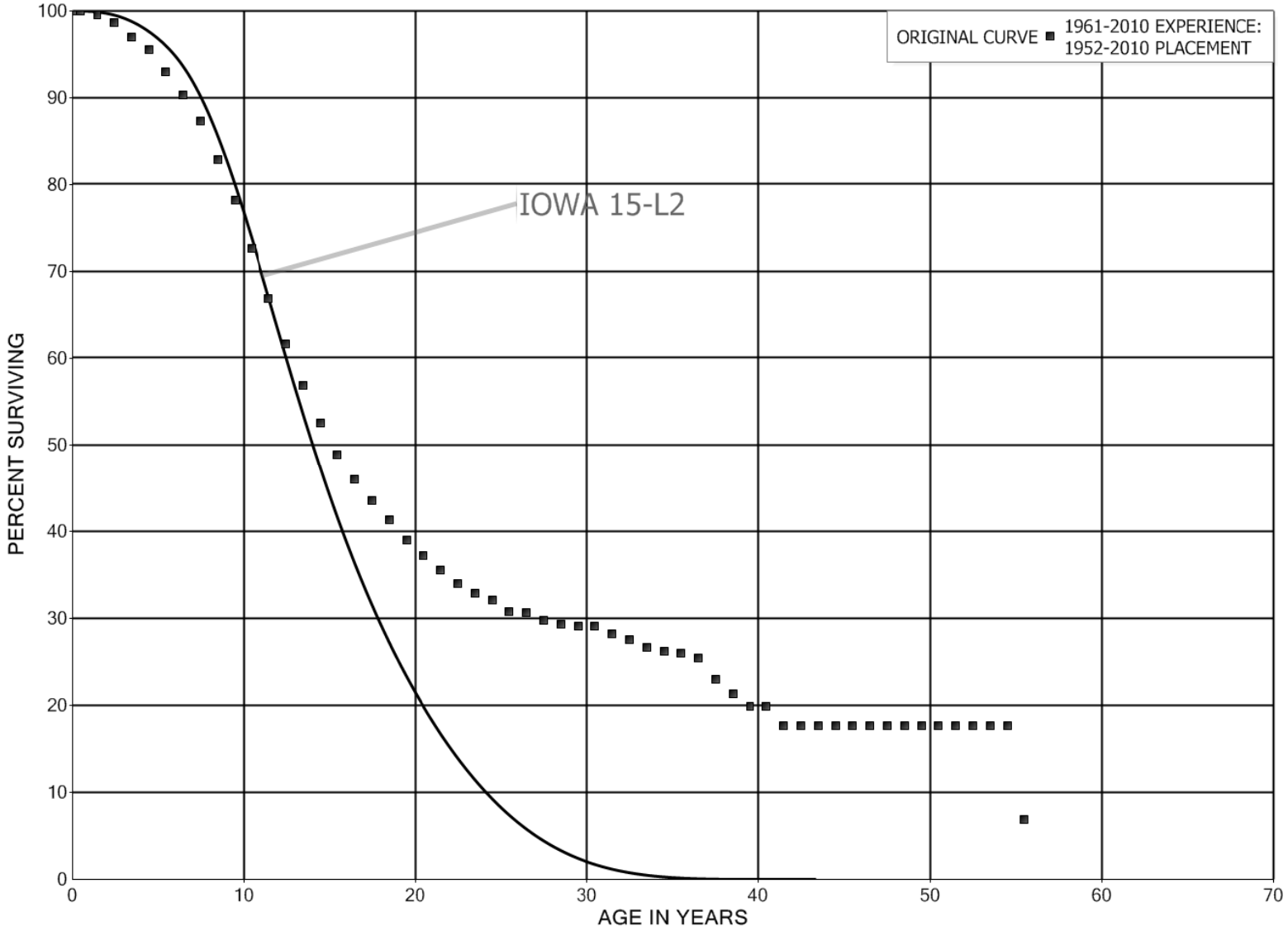
ACCOUNT 484.02 - TRANSPORTATION - COMPANY NGV CYLINDERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1983-2010 EXPERIENCE BAND 1985-2010

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	1,294,703		0.0000	1.0000	100.00
0.5	1,307,526	200	0.0002	0.9998	100.00
1.5	1,316,552	1,690	0.0013	0.9987	99.98
2.5	1,314,862	8,172	0.0062	0.9938	99.86
3.5	1,306,690	21,220	0.0162	0.9838	99.24
4.5	1,190,386	49,335	0.0414	0.9586	97.62
5.5	1,113,568	67,520	0.0606	0.9394	93.58
6.5	1,015,607	97,909	0.0964	0.9036	87.90
7.5	901,576	89,242	0.0990	0.9010	79.43
8.5	788,590	73,990	0.0938	0.9062	71.57
9.5	700,683	44,148	0.0630	0.9370	64.85
10.5	638,484	18,574	0.0291	0.9709	60.77
11.5	533,759	11,903	0.0223	0.9777	59.00
12.5	471,315	1,966	0.0042	0.9958	57.68
13.5	417,123	809	0.0019	0.9981	57.44
14.5	334,167	338	0.0010	0.9990	57.33
15.5	289,375	118	0.0004	0.9996	57.27
16.5	206,463	128	0.0006	0.9994	57.25
17.5	162,271	32	0.0002	0.9998	57.21
18.5	106,384		0.0000	1.0000	57.20
19.5					57.20

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 485.00 - HEAVY WORK EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ACCOUNT 485.00 - HEAVY WORK EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1952-2010 EXPERIENCE BAND 1961-2010

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	28,438,018	22,321	0.0008	0.9992	100.00
0.5	25,709,308	95,341	0.0037	0.9963	99.92
1.5	23,774,061	236,040	0.0099	0.9901	99.55
2.5	21,063,265	332,279	0.0158	0.9842	98.56
3.5	19,861,430	310,539	0.0156	0.9844	97.01
4.5	18,808,886	499,518	0.0266	0.9734	95.49
5.5	17,605,089	499,291	0.0284	0.9716	92.95
6.5	14,802,805	500,165	0.0338	0.9662	90.32
7.5	13,681,887	689,637	0.0504	0.9496	87.27
8.5	12,687,180	725,123	0.0572	0.9428	82.87
9.5	11,597,446	812,015	0.0700	0.9300	78.13
10.5	10,709,918	857,245	0.0800	0.9200	72.66
11.5	9,345,523	727,782	0.0779	0.9221	66.85
12.5	7,991,013	629,623	0.0788	0.9212	61.64
13.5	7,027,276	532,196	0.0757	0.9243	56.78
14.5	5,668,237	398,617	0.0703	0.9297	52.48
15.5	4,770,151	272,075	0.0570	0.9430	48.79
16.5	4,006,917	213,388	0.0533	0.9467	46.01
17.5	3,542,347	180,578	0.0510	0.9490	43.56
18.5	3,070,981	173,696	0.0566	0.9434	41.34
19.5	2,686,237	126,916	0.0472	0.9528	39.00
20.5	2,341,130	105,454	0.0450	0.9550	37.16
21.5	1,793,604	76,779	0.0428	0.9572	35.48
22.5	1,487,277	51,274	0.0345	0.9655	33.96
23.5	1,382,217	32,507	0.0235	0.9765	32.79
24.5	1,197,234	46,512	0.0388	0.9612	32.02
25.5	857,134	6,071	0.0071	0.9929	30.78
26.5	817,947	22,936	0.0280	0.9720	30.56
27.5	609,249	8,159	0.0134	0.9866	29.70
28.5	536,923	3,766	0.0070	0.9930	29.31
29.5	505,010	339	0.0007	0.9993	29.10
30.5	502,269	16,257	0.0324	0.9676	29.08
31.5	376,508	7,776	0.0207	0.9793	28.14
32.5	319,043	10,823	0.0339	0.9661	27.56
33.5	242,718	3,651	0.0150	0.9850	26.62
34.5	218,159	2,571	0.0118	0.9882	26.22
35.5	201,659	4,309	0.0214	0.9786	25.91
36.5	175,324	17,013	0.0970	0.9030	25.36
37.5	76,384	5,469	0.0716	0.9284	22.90
38.5	46,118	3,065	0.0665	0.9335	21.26

ENBRIDGE GAS DISTRIBUTION, INC

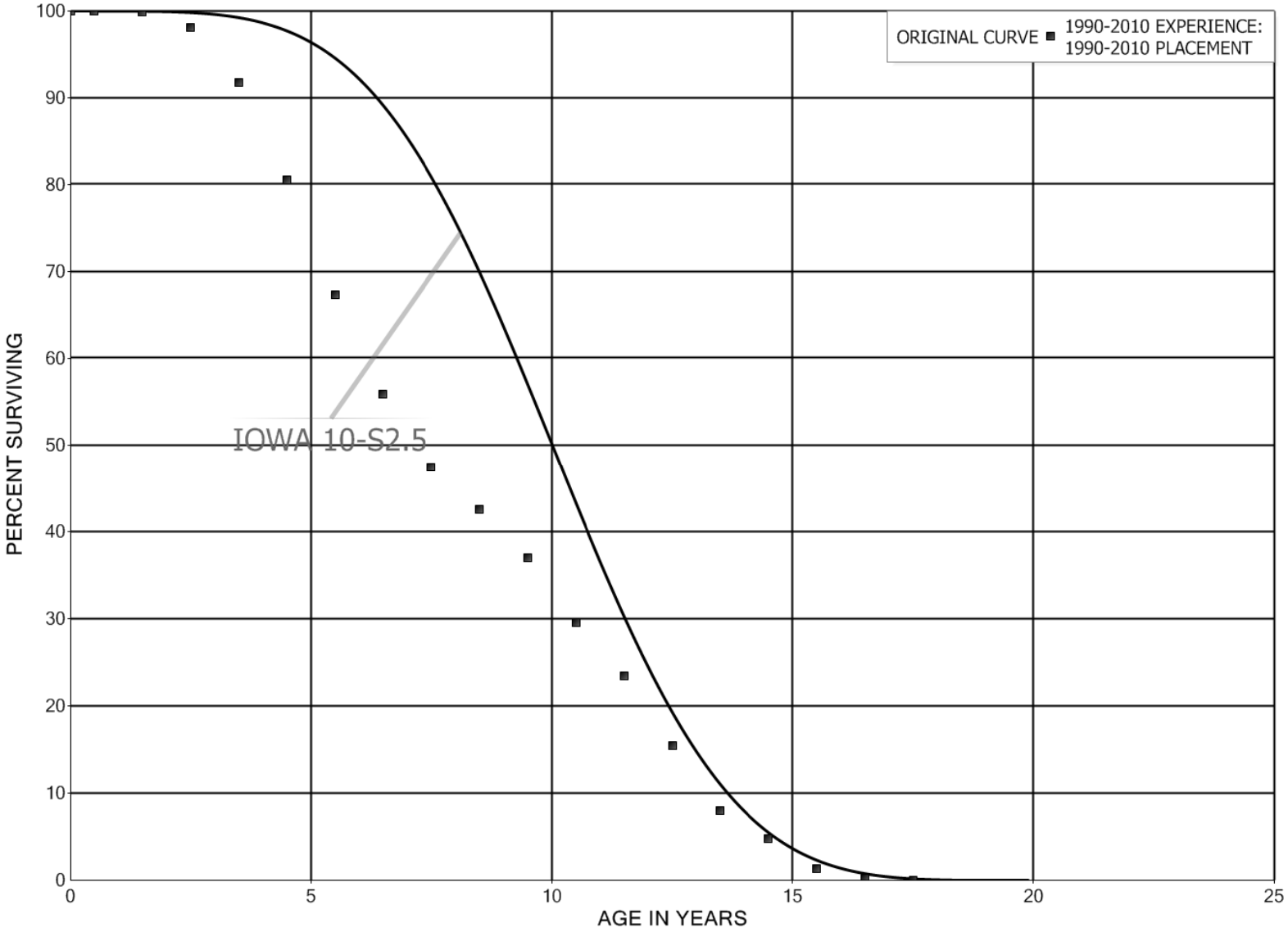
ACCOUNT 485.00 - HEAVY WORK EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1952-2010 EXPERIENCE BAND 1961-2010

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	30,005		0.0000	1.0000	19.85
40.5	30,005	3,316	0.1105	0.8895	19.85
41.5	14,329		0.0000	1.0000	17.65
42.5	14,329		0.0000	1.0000	17.65
43.5	14,329		0.0000	1.0000	17.65
44.5	14,329		0.0000	1.0000	17.65
45.5	14,329		0.0000	1.0000	17.65
46.5	14,329		0.0000	1.0000	17.65
47.5	14,329		0.0000	1.0000	17.65
48.5	14,329		0.0000	1.0000	17.65
49.5	14,329		0.0000	1.0000	17.65
50.5	14,329		0.0000	1.0000	17.65
51.5	14,329		0.0000	1.0000	17.65
52.5	14,329		0.0000	1.0000	17.65
53.5	14,329		0.0000	1.0000	17.65
54.5	14,329	8,788	0.6133	0.3867	17.65
55.5					6.83

ENBRIDGE GAS DISTRIBUTION, INC
ACCOUNT 487.90 - RENTAL NGV CYLINDERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



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ACCOUNT 487.90 - RENTAL NGV CYLINDERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1990-2010 EXPERIENCE BAND 1990-2010

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	4,121,196	251	0.0001	0.9999	100.00
0.5	4,040,463	7,945	0.0020	0.9980	99.99
1.5	4,032,518	71,368	0.0177	0.9823	99.80
2.5	3,961,150	256,664	0.0648	0.9352	98.03
3.5	3,704,486	453,467	0.1224	0.8776	91.68
4.5	3,251,019	532,918	0.1639	0.8361	80.46
5.5	2,718,101	462,366	0.1701	0.8299	67.27
6.5	2,255,735	340,322	0.1509	0.8491	55.83
7.5	1,915,413	197,950	0.1033	0.8967	47.40
8.5	1,717,463	222,861	0.1298	0.8702	42.50
9.5	1,494,602	304,028	0.2034	0.7966	36.99
10.5	1,190,574	245,634	0.2063	0.7937	29.46
11.5	944,940	322,795	0.3416	0.6584	23.39
12.5	622,145	303,219	0.4874	0.5126	15.40
13.5	318,926	126,912	0.3979	0.6021	7.89
14.5	192,014	138,587	0.7218	0.2782	4.75
15.5	53,427	47,629	0.8915	0.1085	1.32
16.5	5,798	5,798	1.0000		0.14
17.5					

NET SALVAGE STATISTICS

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1983	1,177		0	125	11	125	11
1984	45,451		0		0		0
1985	63,093		0	150	0	150	0
1986	130,531		0		0		0
1987	828,508	3,312	0	289,390	35	286,078	35
1988	202,163		0		0		0
1989	48,387	317	1		0	317-	1-
1990	181,220	17,600	10		0	17,600-	10-
1991	148,502	62,612	42		0	62,612-	42-
1992	83,143	255	0		0	255-	0
1993	157,924	116,986	74	2,500	2	114,486-	72-
1994	16,414	2,753	17		0	2,753-	17-
1995	132,246	4,365	3		0	4,365-	3-
1996	6,394	6,784	106	3,415	53	3,369-	53-
1997	2,768	4,835	175		0	4,835-	175-
1998	111,357	351	0		0	351-	0
1999	1,125,399	1,604	0	52,755	5	51,152	5
2000	6,183,993	254,322	4	313,039	5	58,716	1
2001	202,359	501,682	248		0	501,682-	248-
2002	614,321	44,849	7		0	44,849-	7-
2003	404,610	10,052-	2-	185,000	46	195,052	48
2004	16,190,066	320,529	2	5,073,273	31	4,752,744	29
2005	8,601,001	470,398	5	3,875,000	45	3,404,602	40
2006	3,047,027		0		0		0
2007	1,638,935		0	10,902-	1-	10,902-	1-
2008	4,806,617		0	21,805	0	21,805	0
2009	701,405		0		0		0
2010	500,000	1,491,201	298		0	1,491,201-	298-
TOTAL	46,175,009	3,294,703	7	9,805,551	21	6,510,847	14
THREE-YEAR MOVING AVERAGES							
83-85	36,574		0	92	0	92	0
84-86	79,692		0	50	0	50	0
85-87	340,711	1,104	0	96,513	28	95,409	28
86-88	387,067	1,104	0	96,463	25	95,359	25
87-89	359,686	1,210	0	96,463	27	95,254	26
88-90	143,923	5,972	4		0	5,972-	4-
89-91	126,036	26,843	21		0	26,843-	21-
90-92	137,621	26,822	19		0	26,822-	19-
91-93	129,856	59,951	46	833	1	59,118-	46-

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 472.00 - 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							
92-94	85,827	39,998	47	833	1	39,165-	46-
93-95	102,195	41,368	40	833	1	40,535-	40-
94-96	51,685	4,634	9	1,138	2	3,496-	7-
95-97	47,136	5,328	11	1,138	2	4,190-	9-
96-98	40,173	3,990	10	1,138	3	2,852-	7-
97-99	413,175	2,263	1	17,585	4	15,322	4
98-00	2,473,583	85,426	3	121,931	5	36,506	1
99-01	2,503,917	252,536	10	121,931	5	130,605-	5-
00-02	2,333,558	266,951	11	104,346	4	162,605-	7-
01-03	407,097	178,826	44	61,667	15	117,159-	29-
02-04	5,736,332	118,442	2	1,752,758	31	1,634,316	28
03-05	8,398,559	260,292	3	3,044,424	36	2,784,133	33
04-06	9,279,365	263,642	3	2,982,758	32	2,719,116	29
05-07	4,428,988	156,799	4	1,288,033	29	1,131,234	26
06-08	3,164,193		0	3,634	0	3,634	0
07-09	2,382,319		0	3,634	0	3,634	0
08-10	2,002,674	497,067	25	7,268	0	489,799-	24-
FIVE-YEAR AVERAGE							
06-10	2,138,797	298,240	14	2,181	0	296,060-	14-

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 473.00 - SERVICES

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1983	1,121,414	1,407,694	126	906	0	1,406,788-	125-
1984	900,900	1,376,148	153	2,074	0	1,374,074-	153-
1985	1,038,988	1,634,307	157		0	1,634,307-	157-
1986	1,018,346		0		0		0
1987	1,000,246	2,155,908	216	1,105	0	2,154,803-	215-
1988	1,360,871	2,704,092	199	648	0	2,703,445-	199-
1989	2,614,720	3,151,264	121	6,048	0	3,145,215-	120-
1990	3,951,440	3,098,642	78		0	3,098,642-	78-
1991	7,058,747	3,066,654	43		0	3,066,654-	43-
1992	9,152,376	3,347,653	37		0	3,347,653-	37-
1993	4,017,731	3,484,559	87		0	3,484,559-	87-
1994	5,705,686	3,978,739	70		0	3,978,739-	70-
1995	7,090,193	5,296,012	75		0	5,296,012-	75-
1996	13,185,410	5,379,495	41		0	5,379,495-	41-
1997	19,126,966	4,438,532	23	500	0	4,438,032-	23-
1998	9,083,841	4,202,205	46		0	4,202,205-	46-
1999	17,499,762	4,653,182	27		0	4,653,182-	27-
2000	14,964,143	4,641,399	31		0	4,641,399-	31-
2001	19,141,724	5,628,622	29		0	5,628,622-	29-
2002	12,988,609	6,202,344	48		0	6,202,344-	48-
2003	6,560,487	4,757,942	73		0	4,757,942-	73-
2004	14,462,803	8,429,551	58		0	8,429,551-	58-
2005	7,886,238	4,369,246	55		0	4,369,246-	55-
2006	20,787,194	11,168,196	54		0	11,168,196-	54-
2007	12,145,417	8,770,615	72		0	8,770,615-	72-
2008	28,255,673	7,727,858	27		0	7,727,858-	27-
2009	23,113,695	6,558,026	28		0	6,558,026-	28-
2010	29,311,396	12,190,996	42		0	12,190,996-	42-
TOTAL	294,545,016	133,819,881	45	11,281	0	133,808,600-	45-
THREE-YEAR MOVING AVERAGES							
83-85	1,020,434	1,472,716	144	993	0	1,471,723-	144-
84-86	986,078	1,003,485	102	691	0	1,002,793-	102-
85-87	1,019,193	1,263,405	124	368	0	1,263,037-	124-
86-88	1,126,488	1,620,000	144	584	0	1,619,416-	144-
87-89	1,658,612	2,670,421	161	2,600	0	2,667,821-	161-
88-90	2,642,344	2,984,666	113	2,232	0	2,982,434-	113-
89-91	4,541,636	3,105,520	68	2,016	0	3,103,504-	68-
90-92	6,720,854	3,170,983	47		0	3,170,983-	47-
91-93	6,742,951	3,299,622	49		0	3,299,622-	49-

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 473.00 - 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							
92-94	6,291,931	3,603,650	57		0	3,603,650-	57-
93-95	5,604,537	4,253,104	76		0	4,253,104-	76-
94-96	8,660,430	4,884,749	56		0	4,884,749-	56-
95-97	13,134,190	5,038,013	38	167	0	5,037,846-	38-
96-98	13,798,739	4,673,411	34	167	0	4,673,244-	34-
97-99	15,236,856	4,431,306	29	167	0	4,431,139-	29-
98-00	13,849,249	4,498,929	32		0	4,498,929-	32-
99-01	17,201,876	4,974,401	29		0	4,974,401-	29-
00-02	15,698,159	5,490,788	35		0	5,490,788-	35-
01-03	12,896,940	5,529,636	43		0	5,529,636-	43-
02-04	11,337,300	6,463,279	57		0	6,463,279-	57-
03-05	9,636,509	5,852,246	61		0	5,852,246-	61-
04-06	14,378,745	7,988,998	56		0	7,988,998-	56-
05-07	13,606,283	8,102,686	60		0	8,102,686-	60-
06-08	20,396,095	9,222,223	45		0	9,222,223-	45-
07-09	21,171,595	7,685,500	36		0	7,685,500-	36-
08-10	26,893,588	8,825,627	33		0	8,825,627-	33-
FIVE-YEAR AVERAGE							
06-10	22,722,675	9,283,138	41		0	9,283,138-	41-

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 475.00 - MAINS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1983	630,502	316,795	50	3,336	1	313,460-	50-
1984	994,405	580,932	58	4,858	0	576,075-	58-
1985	697,999	590,674	85	2,438	0	588,236-	84-
1986	622,137		0		0		0
1987	983,557	529,450	54	2,354	0	527,097-	54-
1988	1,242,707	612,047	49	6,113	0	605,934-	49-
1989	1,280,521	696,938	54	12,524	1	684,414-	53-
1990	1,690,388	1,666,389	99	2,563	0	1,663,827-	98-
1991	1,498,039	1,308,834	87	2,257	0	1,306,577-	87-
1992	1,805,944	1,934,088	107	3,891	0	1,930,198-	107-
1993	2,237,447	2,083,634	93	2,694	0	2,080,939-	93-
1994	2,468,627	1,961,332	79	6,564	0	1,954,768-	79-
1995	3,491,659	2,504,933	72	30,196	1	2,474,736-	71-
1996	5,465,173	3,494,988	64	1,626	0	3,493,362-	64-
1997	3,247,399	3,552,586	109	762	0	3,551,823-	109-
1998	3,045,547	3,560,071	117	291	0	3,559,780-	117-
1999	1,257,887	3,471,929	276		0	3,471,929-	276-
2000	2,681,347	3,071,620	115		0	3,071,620-	115-
2001	2,929,801	3,554,798	121		0	3,554,798-	121-
2002	5,869,964	4,334,557	74		0	4,334,557-	74-
2003	6,105,052	5,916,052	97		0	5,916,052-	97-
2004	7,565,558	9,468,996	125		0	9,468,996-	125-
2005	1,923,006	5,637,990	293		0	5,637,990-	293-
2006	3,288,995	10,050,698	306		0	10,050,698-	306-
2007	2,049,580	6,929,666	338		0	6,929,666-	338-
2008	4,963,050	10,710,990	216		0	10,710,990-	216-
2009	10,461,861	15,857,285	152		0	15,857,285-	152-
2010	4,833,156	6,477,198	134		0	6,477,198-	134-
TOTAL	85,331,307	110,875,472	130	82,466	0	110,793,006-	130-
THREE-YEAR MOVING AVERAGES							
83-85	774,302	496,134	64	3,544	0	492,590-	64-
84-86	771,514	390,535	51	2,432	0	388,103-	50-
85-87	767,897	373,375	49	1,597	0	371,778-	48-
86-88	949,467	380,499	40	2,822	0	377,677-	40-
87-89	1,168,928	612,812	52	6,997	1	605,815-	52-
88-90	1,404,538	991,791	71	7,067	1	984,725-	70-
89-91	1,489,649	1,224,054	82	5,781	0	1,218,272-	82-
90-92	1,664,790	1,636,437	98	2,904	0	1,633,534-	98-
91-93	1,847,143	1,775,519	96	2,947	0	1,772,571-	96-

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 475.00 - 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							
92-94	2,170,673	1,993,018	92	4,383	0	1,988,635-	92-
93-95	2,732,578	2,183,299	80	13,151	0	2,170,148-	79-
94-96	3,808,487	2,653,751	70	12,795	0	2,640,956-	69-
95-97	4,068,077	3,184,169	78	10,861	0	3,173,307-	78-
96-98	3,919,373	3,535,882	90	893	0	3,534,988-	90-
97-99	2,516,944	3,528,195	140	351	0	3,527,844-	140-
98-00	2,328,260	3,367,874	145	97	0	3,367,777-	145-
99-01	2,289,678	3,366,116	147		0	3,366,116-	147-
00-02	3,827,037	3,653,659	95		0	3,653,659-	95-
01-03	4,968,272	4,601,802	93		0	4,601,802-	93-
02-04	6,513,525	6,573,202	101		0	6,573,202-	101-
03-05	5,197,872	7,007,679	135		0	7,007,679-	135-
04-06	4,259,187	8,385,895	197		0	8,385,895-	197-
05-07	2,420,527	7,539,452	311		0	7,539,452-	311-
06-08	3,433,875	9,230,452	269		0	9,230,452-	269-
07-09	5,824,830	11,165,981	192		0	11,165,981-	192-
08-10	6,752,689	11,015,158	163		0	11,015,158-	163-
FIVE-YEAR AVERAGE							
06-10	5,119,328	10,005,168	195		0	10,005,168-	195-

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 476.00 - COMPANY NGV COMPRESSOR STATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1990	69,377		0		0		0
1991	76,768		0		0		0
1992	529,238		0		0		0
1993	102,857		0		0		0
1994	42,279		0		0		0
1995							
1996	278,451		0		0		0
1997	55,000		0		0		0
1998							
1999	156,863		0		0		0
2000	227,751		0		0		0
2001							
2002							
2003	848,264	709,547	84		0	709,547-	84-
2004							
2005	1,086,964		0		0		0
2006							
2007							
2008							
2009							
2010	24,579		0		0		0
TOTAL	3,498,390	709,547	20		0	709,547-	20-
THREE-YEAR MOVING AVERAGES							
90-92	225,128		0		0		0
91-93	236,288		0		0		0
92-94	224,791		0		0		0
93-95	48,379		0		0		0
94-96	106,910		0		0		0
95-97	111,150		0		0		0
96-98	111,150		0		0		0
97-99	70,621		0		0		0
98-00	128,205		0		0		0
99-01	128,205		0		0		0
00-02	75,917		0		0		0
01-03	282,755	236,516	84		0	236,516-	84-
02-04	282,755	236,516	84		0	236,516-	84-
03-05	645,076	236,516	37		0	236,516-	37-
04-06	362,321		0		0		0
05-07	362,321		0		0		0

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 476.00 - COMPANY NGV COMPRESSOR STATIONS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
THREE-YEAR MOVING AVERAGES							
06-08							
07-09							
08-10	8,193		0		0		0
FIVE-YEAR AVERAGE							
06-10	4,916		0		0		0

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 477.00 - MEASURING AND REGULATING EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1983	314,469	6,278	2		0	6,278-	2-
1984	468,427	4,583	1		0	4,583-	1-
1985	1,156,467	19,968	2	1,754	0	18,215-	2-
1986	457,050		0		0		0
1987	406,322	45,925	11	51,276	13	5,352	1
1988	523,769	21,902	4	28,249	5	6,347	1
1989	700,674	41,741	6	191,741	27	150,000	21
1990	810,142	57,351	7	99,453	12	42,101	5
1991	765,922	76,912	10	174,018	23	97,105	13
1992	1,353,850	143,501	11	91,731	7	51,769-	4-
1993	1,421,708	242,347	17	137,747	10	104,600-	7-
1994	1,194,077	331,999	28	133,841	11	198,158-	17-
1995	2,231,130	190,753	9	117,482	5	73,271-	3-
1996	1,952,020	425,092	22	22,335	1	402,757-	21-
1997	3,191,208	461,412	14	62,427	2	398,985-	13-
1998	1,233,848	975,114	79	22,641	2	952,473-	77-
1999	1,342,147	1,008,644	75	177	0	1,008,467-	75-
2000	990,198	778,097	79	520	0	777,577-	79-
2001	1,682,625	810,092	48	1,000	0	809,092-	48-
2002	992,861	251,367	25	7,761-	1-	259,128-	26-
2003	1,076,445	1,860	0	123,724	11	121,864	11
2004	6,269,144	186,235	3		0	186,235-	3-
2005	1,475,555		0		0		0
2006	1,296,683		0		0		0
2007	89,461		0		0		0
2008	261,348		0		0		0
2009	5,193,459		0		0		0
2010	2,026,717		0		0		0
TOTAL	40,877,727	6,081,174	15	1,252,354	3	4,828,819-	12-
THREE-YEAR MOVING AVERAGES							
83-85	646,454	10,277	2	585	0	9,692-	1-
84-86	693,981	8,184	1	585	0	7,599-	1-
85-87	673,280	21,964	3	17,677	3	4,288-	1-
86-88	462,380	22,609	5	26,509	6	3,900	1
87-89	543,588	36,523	7	90,422	17	53,900	10
88-90	678,195	40,331	6	106,481	16	66,149	10
89-91	758,913	58,668	8	155,070	20	96,402	13
90-92	976,638	92,588	9	121,734	12	29,146	3
91-93	1,180,494	154,253	13	134,499	11	19,755-	2-

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 477.00 - MEASURING AND REGULATING 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							
92-94	1,323,212	239,282	18	121,106	9	118,176-	9-
93-95	1,615,638	255,033	16	129,690	8	125,343-	8-
94-96	1,792,409	315,948	18	91,219	5	224,729-	13-
95-97	2,458,119	359,086	15	67,415	3	291,671-	12-
96-98	2,125,692	620,539	29	35,801	2	584,739-	28-
97-99	1,922,401	815,057	42	28,415	1	786,642-	41-
98-00	1,188,731	920,618	77	7,779	1	912,839-	77-
99-01	1,338,324	865,611	65	566	0	865,045-	65-
00-02	1,221,895	613,185	50	2,080-	0	615,265-	50-
01-03	1,250,644	354,439	28	38,988	3	315,452-	25-
02-04	2,779,484	146,487	5	38,654	1	107,833-	4-
03-05	2,940,382	62,698	2	41,241	1	21,457-	1-
04-06	3,013,794	62,078	2		0	62,078-	2-
05-07	953,900		0		0		0
06-08	549,164		0		0		0
07-09	1,848,090		0		0		0
08-10	2,493,841		0		0		0
FIVE-YEAR AVERAGE							
06-10	1,773,534		0		0		0

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 478.00 - METERS

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1983	670,210		0	34,920	5	34,920	5
1984	765,326		0	39,369	5	39,369	5
1985	853,325	270	0	33,390	4	33,120	4
1986	1,177,249		0		0		0
1987	955,593	122	0	27,812	3	27,690	3
1988	1,067,020	6,423	1	22,940	2	16,517	2
1989	1,078,230		0	25,007	2	25,007	2
1990	1,123,930	77	0	9,207	1	9,131	1
1991	1,460,870	899	0	4,995	0	4,096	0
1992	1,225,335	2,872	0		0	2,872-	0
1993	1,139,656	546	0		0	546-	0
1994	1,467,536	484	0		0	484-	0
1995	2,012,823		0	5,069	0	5,069	0
1996	1,285,120	4,810	0		0	4,810-	0
1997	2,358,960		0		0		0
1998	1,931,633		0		0		0
1999	1,599,321		0		0		0
2000	1,079,952	38,478	4		0	38,478-	4-
2001	871,574		0	2,996	0	2,996	0
2002	1,388,920	7,212	1	111,382	8	104,170	8
2003							
2004	1,580,824	4,979	0	242,283	15	237,304	15
2005	1,839,783	6,092	0	114,297	6	108,205	6
2006	2,398,725		0	122,933	5	122,933	5
2007	5,021,259		0	315,314	6	315,314	6
2008	5,092,128		0	346,804	7	346,804	7
2009	5,099,786		0	345,090	7	345,090	7
2010	12,580,511		0	365,409	3	365,409	3
TOTAL	59,125,599	73,263	0	2,169,218	4	2,095,955	4
THREE-YEAR MOVING AVERAGES							
83-85	762,954	90	0	35,893	5	35,803	5
84-86	931,967	90	0	24,253	3	24,163	3
85-87	995,389	131	0	20,401	2	20,270	2
86-88	1,066,621	2,182	0	16,917	2	14,736	1
87-89	1,033,615	2,182	0	25,253	2	23,071	2
88-90	1,089,727	2,166	0	19,052	2	16,885	2
89-91	1,221,010	325	0	13,070	1	12,745	1
90-92	1,270,045	1,282	0	4,734	0	3,452	0
91-93	1,275,287	1,439	0	1,665	0	226	0

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 478.00 - 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							
92-94	1,277,509	1,301	0		0	1,301-	0
93-95	1,540,005	344	0	1,690	0	1,346	0
94-96	1,588,493	1,765	0	1,690	0	75-	0
95-97	1,885,635	1,603	0	1,690	0	86	0
96-98	1,858,571	1,603	0		0	1,603-	0
97-99	1,963,305		0		0		0
98-00	1,536,969	12,826	1		0	12,826-	1-
99-01	1,183,616	12,826	1	999	0	11,827-	1-
00-02	1,113,482	15,230	1	38,126	3	22,896	2
01-03	753,498	2,404	0	38,126	5	35,722	5
02-04	989,915	4,064	0	117,888	12	113,825	11
03-05	1,140,202	3,690	0	118,860	10	115,170	10
04-06	1,939,777	3,690	0	159,838	8	156,147	8
05-07	3,086,589	2,031	0	184,181	6	182,151	6
06-08	4,170,704		0	261,684	6	261,684	6
07-09	5,071,058		0	335,736	7	335,736	7
08-10	7,590,809		0	352,435	5	352,435	5
FIVE-YEAR AVERAGE							
06-10	6,038,482		0	299,110	5	299,110	5

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 484.00 - TRANSPORTATION EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1983	116,442	1,326	1	16,658	14	15,332	13
1984	301,546	1,050	0	17,074	6	16,023	5
1985	230,327	306	0	40,681	18	40,375	18
1986	295,483		0		0		0
1987	132,359	2,106	2	30,750	23	28,644	22
1988	287,345		0	29,765	10	29,765	10
1989	143,302	1,397	1	20,940	15	19,543	14
1990	493,837	1,845	0	39,470	8	37,625	8
1991	527,161		0	66,176	13	66,176	13
1992	608,025		0		0		0
1993	229,798	130	0	42,160	18	42,031	18
1994	462,319		0	21,266	5	21,266	5
1995	486,358	230	0	57,018	12	56,788	12
1996	499,604		0	87,017	17	87,017	17
1997	525,616		0	118,749	23	118,749	23
1998	360,363		0	135,746	38	135,746	38
1999	1,024,849		0	60,295	6	60,295	6
2000	270,661		0	94,294	35	94,294	35
2001	700,215	4,333	1	46,397	7	42,064	6
2002	907,470	25,360	3	109,806	12	84,446	9
2003							
2004	148,334		0	76,600	52	76,600	52
2005	163,189		0	12,910	8	12,910	8
2006	806,168		0	142,966	18	142,966	18
2007	242,174		0	47,049-	19-	47,049-	19-
2008	1,407,043		0	150,988	11	150,988	11
2009	2,777,760		0	290,232	10	290,232	10
2010	1,585,654		0	159,077	10	159,077	10
TOTAL	15,733,402	38,083	0	1,819,986	12	1,781,903	11
THREE-YEAR MOVING AVERAGES							
83-85	216,105	894	0	24,804	11	23,910	11
84-86	275,785	452	0	19,252	7	18,799	7
85-87	219,390	804	0	23,810	11	23,006	10
86-88	238,396	702	0	20,172	8	19,470	8
87-89	187,669	1,168	1	27,152	14	25,984	14
88-90	308,161	1,081	0	30,058	10	28,978	9
89-91	388,100	1,081	0	42,195	11	41,115	11
90-92	543,008	615	0	35,215	6	34,600	6
91-93	454,995	43	0	36,112	8	36,069	8

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 484.00 - 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							
92-94	433,381	43	0	21,142	5	21,099	5
93-95	392,825	120	0	40,148	10	40,028	10
94-96	482,761	77	0	55,100	11	55,024	11
95-97	503,859	77	0	87,595	17	87,518	17
96-98	461,861		0	113,837	25	113,837	25
97-99	636,943		0	104,930	16	104,930	16
98-00	551,957		0	96,778	18	96,778	18
99-01	665,242	1,444	0	66,995	10	65,551	10
00-02	626,115	9,898	2	83,499	13	73,601	12
01-03	535,895	9,898	2	52,068	10	42,170	8
02-04	351,935	8,453	2	62,135	18	53,682	15
03-05	103,841		0	29,837	29	29,837	29
04-06	372,564		0	77,492	21	77,492	21
05-07	403,844		0	36,276	9	36,276	9
06-08	818,461		0	82,302	10	82,302	10
07-09	1,475,659		0	131,391	9	131,391	9
08-10	1,923,485		0	200,099	10	200,099	10
FIVE-YEAR AVERAGE							
06-10	1,363,760		0	139,243	10	139,243	10

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 485.00 - HEAVY WORK EQUIPMENT

SUMMARY OF BOOK SALVAGE

YEAR	REGULAR RETIREMENTS	COST OF REMOVAL AMOUNT	PCT	GROSS SALVAGE AMOUNT	PCT	NET SALVAGE AMOUNT	PCT
1983	145,955		0	2,400	2	2,400	2
1984	223,251		0	128,699	58	128,699	58
1985	186,060		0	37,050	20	37,050	20
1986	153,575		0		0		0
1987	254,972		0	113,052	44	113,052	44
1988	300,933		0	66,010	22	66,010	22
1989	362,095		0	83,480	23	83,480	23
1990	260,722		0	116,503	45	116,503	45
1991	73,098		0	23,680	32	23,680	32
1992	396,128		0	106,481	27	106,481	27
1993	209,696	173	0	60,500	29	60,327	29
1994	377,497		0	23,435	6	23,435	6
1995	481,619		0	23,000	5	23,000	5
1996	400,121		0	121,614	30	121,614	30
1997	228,184		0	18,050	8	18,050	8
1998	121,172	784	1	164,351	136	163,567	135
1999	347,016		0	16,296	5	16,296	5
2000		2,502				2,502-	
2001	307,248	2,844	1	170,800	56	167,956	55
2002	200,882	178	0	20,500	10	20,322	10
2003	234,714		0	104,000	44	104,000	44
2004	151,628		0	10,500	7	10,500	7
2005	287,014		0	60,241	21	60,241	21
2006	207,422		0	57,376	28	57,376	28
2007	72,900		0	69,376	95	69,376	95
2008	157,107		0	18,150	12	18,150	12
2009	545,015		0	170,549	31	170,549	31
2010	704,713		0	113,778	16	113,778	16
TOTAL	7,390,733	6,482	0	1,899,870	26	1,893,388	26
THREE-YEAR MOVING AVERAGES							
83-85	185,088		0	56,050	30	56,050	30
84-86	187,628		0	55,250	29	55,250	29
85-87	198,202		0	50,034	25	50,034	25
86-88	236,493		0	59,687	25	59,687	25
87-89	306,000		0	87,514	29	87,514	29
88-90	307,917		0	88,665	29	88,665	29
89-91	231,972		0	74,554	32	74,554	32
90-92	243,316		0	82,221	34	82,221	34
91-93	226,307	58	0	63,554	28	63,496	28

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 485.00 - HEAVY WORK 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							
92-94	327,774	58	0	63,472	19	63,414	19
93-95	356,271	58	0	35,645	10	35,587	10
94-96	419,745		0	56,016	13	56,016	13
95-97	369,975		0	54,221	15	54,221	15
96-98	249,826	261	0	101,338	41	101,077	40
97-99	232,124	261	0	66,232	29	65,971	28
98-00	156,062	1,095	1	60,216	39	59,120	38
99-01	218,088	1,782	1	62,365	29	60,583	28
00-02	169,377	1,842	1	63,767	38	61,925	37
01-03	247,615	1,008	0	98,433	40	97,426	39
02-04	195,741	60	0	45,000	23	44,940	23
03-05	224,452		0	58,247	26	58,247	26
04-06	215,354		0	42,706	20	42,706	20
05-07	189,112		0	62,331	33	62,331	33
06-08	145,809		0	48,301	33	48,301	33
07-09	258,340		0	86,025	33	86,025	33
08-10	468,945		0	100,825	22	100,825	22
FIVE-YEAR AVERAGE							
06-10	337,431		0	85,846	25	85,846	25

DETAILED DEPRECIATION CALCULATIONS

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 451.10 - LAND RIGHTS INTANGIBLE

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-R4						
NET SALVAGE PERCENT.. 0						
1963	2,261,925.37	1,541,932	2,003,773	258,152	20.69	12,477
1964	5,277,825.12	3,535,351	4,594,263	683,562	21.46	31,853
1977	5,954,998.00	2,989,409	3,884,800	2,070,198	32.37	63,954
1987	15,973,398.04	5,713,525	7,424,847	8,548,551	41.75	204,756
1988	1,286,979.22	441,138	573,268	713,711	42.72	16,707
1994	500,000.00	126,310	164,143	335,857	48.58	6,913
1996	189,740.13	42,151	54,776	134,964	50.56	2,669
1997	3,410,568.26	705,715	917,092	2,493,476	51.55	48,370
1998	223,055.00	42,757	55,564	167,491	52.54	3,188
1999	4,655,086.48	821,437	1,067,474	3,587,612	53.53	67,021
2000	73,780.16	11,885	15,445	58,335	54.53	1,070
2001	25,907.01	3,779	4,911	20,996	55.52	378
2002	844,418.23	110,163	143,159	701,259	56.52	12,407
	40,677,681.02	16,085,552	20,903,515	19,774,166		471,763
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					41.9	1.16

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 452.00 - STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-R1.5						
NET SALVAGE PERCENT.. 0						
1964	375,077.67	260,304	369,339	5,739	13.77	417
1967	40,262.84	26,681	37,857	2,406	15.18	158
1970	27,972.55	17,592	24,961	3,012	16.70	180
1971	91,159.23	56,275	79,847	11,312	17.22	657
1972	9,340.00	5,654	8,022	1,318	17.76	74
1973	494,105.11	293,059	415,814	78,291	18.31	4,276
1974	25,665.69	14,903	21,145	4,521	18.87	240
1975	89,046.82	50,559	71,737	17,310	19.45	890
1976	22,491.59	12,480	17,708	4,784	20.03	239
1977	1,396.57	757	1,074	323	20.62	16
1978	129,855.00	68,592	97,323	32,532	21.23	1,532
1979	165,914.13	85,391	121,159	44,755	21.84	2,049
1980	1,304.38	653	927	377	22.46	17
1981	450,843.54	219,412	311,318	139,526	23.10	6,040
1982	123,121.77	58,168	82,533	40,589	23.74	1,710
1983	192,041.89	87,955	124,797	67,245	24.39	2,757
1984	140,300.10	62,199	88,253	52,047	25.05	2,078
1985	34,056.11	14,591	20,703	13,353	25.72	519
1986	4,254.99	1,759	2,496	1,759	26.40	67
1987	17,922.02	7,133	10,121	7,801	27.09	288
1988	176,180.13	67,419	95,659	80,521	27.78	2,899
1989	619,190.38	227,311	322,526	296,664	28.48	10,417
1990	32,320.14	11,355	16,111	16,209	29.19	555
1991	66,999.69	22,482	31,899	35,101	29.90	1,174
1992	81,863.06	26,141	37,091	44,772	30.63	1,462
1993	33,219.42	10,069	14,287	18,932	31.36	604
1994	318,320.75	91,323	129,576	188,745	32.09	5,882
1995	1,355,454.58	366,569	520,115	835,340	32.83	25,444
1996	83,714.55	21,245	30,144	53,571	33.58	1,595
1997	2,952,586.16	700,088	993,336	1,959,250	34.33	57,071
1998	245,782.55	54,126	76,798	168,985	35.09	4,816
1999	604,659.02	122,945	174,444	430,215	35.85	12,000
2000	402,402.28	74,935	106,323	296,079	36.62	8,085
2001	116,037.21	19,623	27,843	88,194	37.39	2,359
2002	129,979.38	19,728	27,992	101,987	38.17	2,672
2003	88,806.91	11,939	16,940	71,867	38.95	1,845
2004	114,360.34	13,368	18,967	95,393	39.74	2,400
2005	354,098.88	35,095	49,795	304,304	40.54	7,506
2006	355,520.37	28,914	41,025	314,495	41.34	7,608
2007	31,555.19	2,006	2,846	28,709	42.14	681

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 452.00 - STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-R1.5						
NET SALVAGE PERCENT.. 0						
2008	224,424.81	10,225	14,508	209,917	42.95	4,887
2009	261,323.52	7,142	10,134	251,190	43.77	5,739
2010	3,262,299.40	29,720	42,169	3,220,130	44.59	72,216
	14,347,230.72	3,317,885	4,707,662	9,639,569		264,121
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					36.5	1.84

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 453.00 - WELLS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
1963	236,690.80	204,509	248,525			
1964	328,705.74	280,714	345,141			
1965	34,145.77	28,802	35,853			
1966	293,679.89	244,499	308,364			
1968	183,177.64	148,228	192,337			
1969	417,248.96	332,478	438,111			
1970	53,284.19	41,762	55,948			
1971	381,190.89	293,696	400,250			
1972	230,343.21	174,302	241,860			
1973	112,820.71	83,739	118,462			
1974	252,754.70	183,888	265,392			
1975	67,285.82	47,948	70,650			
1976	56,281.42	39,226	59,095			
1978	436,363.33	290,079	458,181			
1980	104,232.11	65,812	109,444			
1983	704,130.85	407,456	739,337			
1984	256,587.06	143,809	269,416			
1985	196,362.32	106,434	202,576	3,604	21.77	166
1987	2,968,778.19	1,497,636	2,850,446	266,771	23.38	11,410
1988	1,093,441.12	530,428	1,009,562	138,551	24.21	5,723
1989	1,657,305.24	771,870	1,469,098	271,073	25.04	10,826
1990	223,259.49	99,552	189,477	44,945	25.89	1,736
1991	7,070.80	3,013	5,735	1,689	26.74	63
1993	323.42	125	238	102	28.49	4
1994	52,007.28	18,967	36,100	18,508	29.37	630
1996	3,273,351.28	1,056,299	2,010,451	1,426,568	31.17	45,767
1997	3,079,459.11	928,351	1,766,928	1,466,504	32.08	45,714
1998	1,246,567.85	349,043	664,333	644,563	33.00	19,532
1999	3,052,785.28	788,534	1,500,814	1,704,611	33.93	50,239
2000	846,827.05	200,356	381,337	507,831	34.86	14,568
2001	890,530.48	190,957	363,448	571,609	35.81	15,962
2002	927,627.77	178,565	339,862	634,147	36.75	17,256
2003	1,109,439.29	188,716	359,183	805,728	37.71	21,366
2004	452,253.93	66,799	127,138	347,729	38.67	8,992
2005	1,366,690.63	171,242	325,924	1,109,101	39.63	27,986
2006	996,980.51	102,359	194,820	852,010	40.60	20,985
2007	727,143.68	58,194	110,761	652,740	41.57	15,702
2008	1,181,974.42	67,564	128,594	1,112,479	42.55	26,145

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 453.00 - WELLS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
2009	1,794,438.60	61,556	117,159	1,767,002	43.53	40,593
2010	8,097,391.77	92,590	176,227	8,326,035	44.51	187,060
	39,390,932.60	10,540,097	18,686,577	22,673,903		588,425
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					38.5	1.49

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 454.00 - WELL EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-R4						
NET SALVAGE PERCENT.. 0						
1963	286,102.10	286,102	286,102			
1964	45,733.53	45,734	45,734			
1966	90,870.93	90,871	90,871			
1968	117,015.69	117,016	117,016			
1969	274,932.45	274,932	274,932			
1970	44,597.83	44,598	44,598			
1971	99,789.68	99,790	99,790			
1972	66,462.85	66,463	66,463			
1973	53,146.89	52,785	43,117	10,030	0.17	10,030
1974	83,889.03	82,715	67,566	16,323	0.35	16,323
1975	40,956.20	40,055	32,719	8,237	0.55	8,237
1976	34,738.49	33,669	27,502	7,236	0.77	7,236
1978	209,325.48	198,775	162,369	46,956	1.26	37,267
1980	37,576.46	34,901	28,509	9,067	1.78	5,094
1983	242,604.77	216,695	177,007	65,598	2.67	24,569
1984	354,403.71	311,450	254,407	99,997	3.03	33,002
1987	1,114,900.61	917,340	749,327	365,574	4.43	82,522
1988	146,890.66	117,395	95,894	50,997	5.02	10,159
1989	301,200.19	232,888	190,234	110,966	5.67	19,571
1990	214,589.11	160,169	130,834	83,755	6.34	13,211
1991	11,916.08	8,556	6,989	4,927	7.05	699
1992	150,780.92	103,798	84,787	65,994	7.79	8,472
1994	89,412.56	55,972	45,721	43,692	9.35	4,673
1996	918,135.83	513,422	419,387	498,749	11.02	45,259
1997	844,145.62	442,332	361,317	482,829	11.90	40,574
1998	334,813.79	163,389	133,464	201,350	12.80	15,730
1999	672,830.84	303,581	247,979	424,852	13.72	30,966
2000	116,064.75	48,004	39,212	76,853	14.66	5,242
2001	90,806.99	34,107	27,860	62,947	15.61	4,032
2002	14,028.42	4,725	3,860	10,168	16.58	613
2003	275,649.33	82,144	67,099	208,550	17.55	11,883
2004	25,316.50	6,552	5,352	19,964	18.53	1,077
2005	186,049.07	40,782	33,312	152,737	19.52	7,825
2006	90,324.50	16,222	13,251	77,074	20.51	3,758
2007	104,271.10	14,556	11,890	92,381	21.51	4,295
2008	235,243.37	23,524	19,216	216,027	22.50	9,601
2009	456,838.77	27,410	22,389	434,450	23.50	18,487
2010	606,522.14	12,130	9,909	596,614	24.50	24,352
	9,082,877.24	5,325,549	4,537,985	4,544,893		504,759
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					9.0	5.56

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 455.00 - FIELD LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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.. -5						
1963	2,630,971.32	2,004,070	2,762,520			
1964	14,882.07	11,163	15,570	56	15.71	4
1965	20,038.98	14,797	20,639	402	16.32	25
1966	68,742.85	49,923	69,633	2,547	16.96	150
1967	40,165.52	28,671	39,990	2,184	17.61	124
1968	112,031.80	78,558	109,573	8,060	18.27	441
1969	63,074.63	43,422	60,565	5,663	18.94	299
1970	52,764.41	35,629	49,695	5,708	19.63	291
1971	196,492.13	130,054	181,400	24,917	20.33	1,226
1973	64,589.43	40,975	57,152	10,667	21.77	490
1974	63,696.80	39,521	55,124	11,758	22.50	523
1975	14,919.47	9,043	12,613	3,052	23.25	131
1976	4,509,317.32	2,667,814	3,721,079	1,013,704	24.01	42,220
1977	2,007,172.62	1,158,383	1,615,718	491,813	24.77	19,855
1978	45,035.42	25,320	35,316	11,971	25.55	469
1979	14,026.95	7,675	10,705	4,023	26.34	153
1982	27,744.18	13,898	19,385	9,746	28.76	339
1983	63,775.74	30,938	43,152	23,813	29.59	805
1984	3,369.95	1,581	2,205	1,333	30.42	44
1985	553,892.18	251,036	350,146	231,441	31.26	7,404
1987	5,894,962.87	2,479,289	3,458,124	2,731,587	32.97	82,851
1988	153,102.61	61,848	86,266	74,492	33.84	2,201
1989	115,369.32	44,667	62,302	58,836	34.72	1,695
1994	1,444,423.00	435,413	607,316	909,328	39.21	23,191
1996	542,784.69	144,447	201,475	368,449	41.06	8,973
1997	8,115,463.15	2,015,698	2,811,505	5,709,731	41.99	135,978
1998	1,316,983.06	303,463	423,272	959,560	42.93	22,352
1999	7,039,455.98	1,495,730	2,086,250	5,305,179	43.87	120,930
2000	746,802.38	145,278	202,634	581,508	44.81	12,977
2001	5,749.65	1,013	1,413	4,624	45.77	101
2002	1,048,123.66	165,685	231,098	869,432	46.72	18,609
2003	2,360,715.05	329,451	459,520	2,019,231	47.69	42,341
2004	2,746,444.07	332,931	464,374	2,419,392	48.65	49,731
2005	767,388.02	78,819	109,937	695,820	49.62	14,023
2006	2,064,582.83	173,815	242,438	1,925,374	50.59	38,058
2007	630,307.19	41,271	57,565	604,258	51.57	11,717
2008	2,418.49	114	159	2,380	52.54	45
2009	912,565.59	25,785	35,965	922,229	53.52	17,231
2010	253,364.39	2,370	3,306	262,727	54.51	4,820
	46,727,709.77	14,919,558	20,777,099	28,286,997		682,817
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					41.4	1.46

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 456.00 - COMPRESSOR EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-R2						
NET SALVAGE PERCENT.. -5						
1964	3,397,061.10	2,828,563	2,932,426	634,488	8.28	76,629
1969	43,657.29	33,956	35,203	10,637	10.37	1,026
1971	1,966,168.04	1,480,746	1,535,118	529,358	11.31	46,804
1972	6,110.26	4,523	4,689	1,727	11.80	146
1973	3,059,499.98	2,224,639	2,306,326	906,149	12.30	73,671
1974	237,601.26	169,523	175,748	73,733	12.82	5,751
1975	1,983,554.30	1,387,100	1,438,033	644,699	13.36	48,256
1980	534,002.97	332,917	345,142	215,561	16.25	13,265
1981	3,857,456.42	2,342,103	2,428,104	1,622,225	16.87	96,160
1982	4,133,805.64	2,441,529	2,531,180	1,809,316	17.50	103,389
1983	35,604.20	20,421	21,171	16,213	18.15	893
1985	2,969.22	1,599	1,658	1,460	19.48	75
1986	209,951.59	109,343	113,358	107,091	20.16	5,312
1987	25,236.41	12,679	13,145	13,353	20.86	640
1988	1,491,274.81	721,852	748,358	817,481	21.56	37,917
1989	55,142.77	25,650	26,592	31,308	22.28	1,405
1990	959,655.99	427,995	443,711	563,928	23.01	24,508
1991	87,929.97	37,508	38,885	53,441	23.75	2,250
1992	2,748,768.03	1,118,405	1,159,472	1,726,734	24.50	70,479
1994	432,698.55	158,676	164,502	289,831	26.03	11,134
1995	9,545,345.30	3,302,451	3,423,715	6,598,898	26.82	246,044
1996	3,498,227.71	1,137,755	1,179,533	2,493,606	27.61	90,315
1997	11,740,522.61	3,571,907	3,703,065	8,624,484	28.41	303,572
1998	1,280,742.17	362,754	376,074	968,705	29.21	33,163
1999	3,574,340.71	935,450	969,799	2,783,259	30.03	92,683
2000	5,401,223.85	1,295,889	1,343,473	4,327,812	30.86	140,240
2001	1,471,061.66	320,894	332,677	1,211,938	31.69	38,244
2002	2,402,256.44	470,422	487,696	2,034,673	32.54	62,528
2003	3,801,525.34	659,612	683,832	3,307,770	33.39	99,065
2004	3,345,012.29	505,766	524,337	2,987,926	34.24	87,264
2005	3,257,105.37	418,090	433,442	2,986,519	35.11	85,062
2006	5,244,506.04	553,426	573,748	4,932,983	35.98	137,103
2007	1,469,779.73	120,761	125,195	1,418,074	36.87	38,461
2008	3,924,021.31	231,763	240,273	3,879,949	37.75	102,780
2009	4,690,963.97	166,236	172,340	4,753,172	38.65	122,980
2010	1,866,705.50	22,050	22,860	1,937,181	39.55	48,981
	91,781,488.80	29,954,953	31,054,880	65,315,683		2,348,195
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					27.8	2.56

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 457.00 - MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-R1.5						
NET SALVAGE PERCENT.. -5						
1963	130,385.00	120,567	136,904			
1964	4,669.71	4,276	4,903			
1971	29,834.21	25,144	31,326			
1972	2.00	2	2			
1975	230,863.23	183,259	232,750	9,656	7.32	1,319
1977	55,685.42	42,664	54,186	4,284	8.11	528
1979	19,235.52	14,165	17,990	2,207	8.96	246
1984	99,162.31	64,589	82,032	22,088	11.39	1,939
1987	645,515.34	382,728	486,087	191,704	13.06	14,679
1988	62,394.01	35,705	45,347	20,167	13.65	1,477
1989	93,552.32	51,571	65,498	32,732	14.25	2,297
1993	39,247.64	18,119	23,012	18,198	16.81	1,083
1994	446,474.29	195,489	248,283	220,515	17.49	12,608
1996	402,201.23	156,677	198,989	223,322	18.87	11,835
1997	1,866,454.66	680,689	864,515	1,095,262	19.58	55,938
2000	6,340,252.61	1,828,551	2,322,368	4,334,897	21.76	199,214
2001	13,458.94	3,528	4,481	9,651	22.51	429
2002	1,039.05	245	311	780	23.26	34
2003	595,307.24	124,389	157,982	467,091	24.03	19,438
2005	63,577.47	9,835	12,491	54,265	25.58	2,121
2006	36,592.08	4,662	5,921	32,501	26.36	1,233
2007	38,359.14	3,813	4,843	35,434	27.16	1,305
2008	196,488.02	14,029	17,817	188,495	27.96	6,742
2010	145,568.22	2,089	2,653	150,193	29.59	5,076
	11,556,319.66	3,966,785	5,020,691	7,113,444		339,541
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					21.0	2.94

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 471.00 - LAND RIGHTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
2008	7,359,865.00	245,304	1,070,077	6,289,788	72.50	86,756
2009	86,901.43	1,738	7,582	79,320	73.50	1,079
	7,446,766.43	247,042	1,077,659	6,369,108		87,835
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT.. 72.5						1.18

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
VICTORIA PARK CENTRE						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2018						
NET SALVAGE PERCENT.. +20						
1963	230,078.64	156,731	6,048	178,015	7.27	24,486
1965	79.30	54	2	61	7.33	8
1966	50,192.55	33,893	1,308	38,846	7.35	5,285
1967	752,453.85	506,444	19,544	582,419	7.38	78,919
1968	449,042.32	301,254	11,626	347,608	7.40	46,974
1969	143,311.44	95,795	3,697	110,952	7.43	14,933
1970	24,891.89	16,580	640	19,274	7.45	2,587
1971	9,388.34	6,228	240	7,270	7.48	972
1972	43,500.59	28,742	1,109	33,691	7.50	4,492
1974	68,483.28	44,843	1,731	53,056	7.55	7,027
1976	41,547.20	26,940	1,040	32,198	7.59	4,242
1977	106,821.86	68,897	2,659	82,799	7.61	10,880
1979	1,744,755.39	1,112,191	42,920	1,352,884	7.65	176,848
1980	194,904.05	123,452	4,764	151,159	7.67	19,708
1981	212,527.99	133,694	5,159	164,863	7.69	21,439
1982	296,245.85	184,997	7,139	229,858	7.71	29,813
1983	433,337.84	268,496	10,361	336,309	7.73	43,507
1985	262,438.31	159,852	6,169	203,782	7.76	26,261
1986	63,269.80	38,166	1,473	49,143	7.78	6,317
1987	131,249.15	78,382	3,025	101,975	7.79	13,091
1988	70,045.67	41,361	1,596	54,440	7.81	6,971
1989	104,823.52	61,167	2,360	81,498	7.82	10,422
1990	526,894.73	303,407	11,709	409,807	7.84	52,271
1991	19,831.06	11,261	435	15,430	7.85	1,966
1992	542,794.97	303,518	11,713	422,523	7.86	53,756
1993	1,682,451.50	924,406	35,673	1,310,288	7.88	166,280
1994	505,443.68	272,576	10,519	393,836	7.89	49,916
1995	178,011.52	94,021	3,628	138,781	7.90	17,567
1996	734,136.80	378,891	14,622	572,688	7.91	72,401
1997	1,856,158.22	933,558	36,026	1,448,900	7.92	182,942
1998	976,980.85	477,165	18,414	763,171	7.93	96,238
1999	2,466,193.21	1,164,635	44,944	1,928,011	7.94	242,823
2000	4,370,335.15	1,985,636	76,627	3,419,642	7.95	430,144
2001	1,930,954.13	839,780	32,407	1,512,356	7.95	190,233
2002	682,178.42	281,505	10,863	534,879	7.96	67,196
2003	924,960.91	358,248	13,825	726,144	7.97	91,110
2004	1,664,776.92	597,748	23,067	1,308,754	7.97	164,210
2005	2,093,914.00	682,733	26,347	1,648,784	7.98	206,615
2006	2,269,624.51	654,705	25,265	1,790,434	7.98	224,365

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
VICTORIA PARK CENTRE						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2018						
NET SALVAGE PERCENT.. +20						
2007	1,776,267.00	432,002	16,671	1,404,342	7.99	175,762
2008	1,285,367.00	245,063	9,457	1,018,837	7.99	127,514
2009	1,852,446.00	234,238	9,039	1,472,917	7.99	184,345
2010	3,446,102.00	162,160	6,258	2,750,624	8.00	343,828
	37,219,211.41	14,825,415	572,119	29,203,250		3,696,664
KENNEDY ROAD						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2013						
NET SALVAGE PERCENT.. +20						
1979	306,766.55	223,738	35,101	210,312	2.95	71,292
1980	49,090.49	35,698	5,600	33,672	2.96	11,376
1981	17,332.56	12,568	1,972	11,894	2.96	4,018
1982	16,133.36	11,664	1,830	11,077	2.96	3,742
1983	5,753.74	4,145	650	3,953	2.97	1,331
1984	17,350.96	12,454	1,954	11,927	2.97	4,016
1985	1,018.00	728	114	700	2.97	236
1986	13,565.66	9,661	1,516	9,337	2.97	3,144
1987	9,535.96	6,761	1,061	6,568	2.97	2,211
1988	9,709.55	6,848	1,074	6,693	2.98	2,246
1989	6,534.80	4,584	719	4,509	2.98	1,513
1990	117,092.06	81,667	12,812	80,861	2.98	27,135
1991	43,865.45	30,401	4,769	30,323	2.98	10,176
1992	58,518.38	40,274	6,318	40,496	2.98	13,589
1993	26,072.94	17,795	2,792	18,067	2.99	6,042
1994	9,039.03	6,116	960	6,272	2.99	2,098
1995	13,120.29	8,791	1,379	9,117	2.99	3,049
1996	102,314.82	67,803	10,637	71,215	2.99	23,818
1997	98,083.49	64,196	10,071	68,395	2.99	22,875
1998	23,609.37	15,232	2,390	16,498	2.99	5,518
1999	199,522.97	126,612	19,863	139,755	2.99	46,741
2000	25,061.43	15,599	2,447	17,602	2.99	5,887
2001	78,903.44	47,949	7,522	55,600	3.00	18,533
2002	575,735.69	340,228	53,376	407,212	3.00	135,737
2003	156,040.51	89,132	13,983	110,849	3.00	36,950
2004	101,786.50	55,688	8,737	72,693	3.00	24,231
2005	41,235.00	21,345	3,349	29,639	3.00	9,880
2006	11,746.50	5,638	885	8,513	3.00	2,838
2007	40,720.00	17,541	2,752	29,824	3.00	9,941
2008	10,972.35	3,990	626	8,152	3.00	2,717

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
KENNEDY ROAD						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2013						
NET SALVAGE PERCENT.. +20						
2009	34,733.53	9,262	1,453	26,334	3.00	8,778
2010	34,085.71	3,896	611	26,657	3.00	8,886
	2,255,051.09	1,398,004	219,325	1,584,716		530,544
OTTAWA OFFICE						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2025						
NET SALVAGE PERCENT.. +20						
1965	29,264.23	17,721	4,798	18,614	12.55	1,483
1966	573,177.68	345,186	93,454	365,088	12.64	28,884
1967	68,313.22	40,915	11,077	43,573	12.72	3,426
1968	1,071.48	638	173	684	12.80	53
1969	14,240.58	8,428	2,282	9,111	12.89	707
1970	56,834.82	33,423	9,049	36,419	12.97	2,808
1971	13,807.15	8,066	2,184	8,862	13.05	679
1972	3,985.00	2,312	626	2,562	13.13	195
1973	3,656.00	2,105	570	2,355	13.21	178
1974	61,693.21	35,262	9,547	39,808	13.28	2,998
1976	6,232.00	3,504	949	4,037	13.43	301
1977	1,677.02	935	253	1,088	13.50	81
1978	426.00	235	64	277	13.57	20
1979	32,280.00	17,648	4,778	21,046	13.64	1,543
1980	520.81	282	76	340	13.71	25
1981	16,245.55	8,691	2,353	10,643	13.78	772
1982	12,301.30	6,504	1,761	8,080	13.85	583
1983	885,357.89	462,348	125,173	583,113	13.91	41,920
1984	98,532.77	50,785	13,749	65,077	13.97	4,658
1985	70,969.44	36,070	9,765	47,010	14.03	3,351
1986	44,485.99	22,270	6,029	29,560	14.09	2,098
1987	29,681.56	14,622	3,959	19,787	14.15	1,398
1988	42,443.52	20,548	5,563	28,392	14.21	1,998
1989	2,353.52	1,119	303	1,580	14.26	111
1990	70,363.87	32,793	8,878	47,413	14.31	3,313
1991	18,276.90	8,335	2,257	12,365	14.36	861
1992	71,448.15	31,831	8,618	48,541	14.41	3,369
1993	7,518,620.95	3,265,127	883,982	5,130,915	14.46	354,835
1994	21,517.75	9,092	2,462	14,753	14.50	1,017
1995	47,057.81	19,278	5,219	32,427	14.55	2,229
1996	97,856.26	38,764	10,495	67,790	14.59	4,646
1997	204,672.41	78,124	21,151	142,587	14.63	9,746
1998	1,029,875.67	377,379	102,169	721,731	14.66	49,231

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
OTTAWA OFFICE						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2025						
NET SALVAGE PERCENT.. +20						
1999	293,625.69	102,652	27,791	207,109	14.70	14,089
2000	95,484.98	31,667	8,573	67,815	14.73	4,604
2001	162,810.38	50,840	13,764	116,484	14.76	7,892
2002	178,892.00	52,075	14,098	129,015	14.79	8,723
2003	68,819.90	18,451	4,995	50,061	14.82	3,378
2004	608,942.54	148,226	40,130	447,024	14.84	30,123
2005	297,336.00	64,141	17,365	220,504	14.87	14,829
2006	55,431.31	10,274	2,782	41,564	14.89	2,791
2007	348,249.22	52,842	14,306	264,293	14.91	17,726
2008	536,232.39	61,564	16,667	412,318	14.92	27,635
2009	219,388.65	16,014	4,336	171,175	14.94	11,457
2010	171,067.29	4,429	1,199	135,655	14.95	9,074
	14,185,520.86	5,613,515	1,519,771	9,828,646		681,838
BROCKVILLE						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2025						
NET SALVAGE PERCENT.. +20						
1981	51,364.84	27,480	8,445	32,647	13.78	2,369
1985	96,924.86	49,261	15,138	62,402	14.03	4,448
1986	210.36	105	32	136	14.09	10
1987	568.44	280	86	369	14.15	26
1988	1,614.65	782	240	1,051	14.21	74
1990	156.19	73	22	103	14.31	7
1993	1,176.07	511	157	784	14.46	54
1995	11,273.34	4,618	1,419	7,600	14.55	522
1996	4,359.56	1,727	531	2,957	14.59	203
1997	2,145.15	819	252	1,464	14.63	100
1999	2,842.92	994	305	1,969	14.70	134
2000	4,517.62	1,498	460	3,154	14.73	214
2001	195.00	61	19	137	14.76	9
2002	1,175.00	342	105	835	14.79	56
2003	14,049.00	3,767	1,158	10,082	14.82	680
2004	1,793.00	436	134	1,300	14.84	88
2005	166,691.00	35,959	11,050	122,303	14.87	8,225
2007	5,377.00	816	251	4,051	14.91	272
2008	47,700.00	5,476	1,683	36,477	14.92	2,445
2009	18,634.33	1,360	418	14,490	14.94	970
2010	67,036.76	1,735	533	53,096	14.95	3,552
	499,805.09	138,100	42,438	357,406		24,458

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ARNPRIOR						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2025						
NET SALVAGE PERCENT.. +20						
1981	442,263.05	236,611	94,054	259,757	13.78	18,850
1984	1,921.07	990	394	1,143	13.97	82
1989	2,252.00	1,070	425	1,376	14.26	96
1991	738.74	337	134	457	14.36	32
1993	1,903.37	827	329	1,194	14.46	83
1995	7,500.00	3,072	1,221	4,779	14.55	328
1997	6,575.00	2,510	998	4,262	14.63	291
1998	4,275.00	1,566	622	2,798	14.66	191
1999	7,422.92	2,595	1,032	4,907	14.70	334
2002	829.70	242	96	568	14.79	38
2003	534.00	143	57	370	14.82	25
2004	4,439.28	1,081	430	3,122	14.84	210
2005	12,459.00	2,688	1,068	8,899	14.87	598
2006	6,576.32	1,219	485	4,776	14.89	321
2007	5,212.90	791	314	3,856	14.91	259
2009	9,669.82	706	281	7,455	14.94	499
2010	56,148.70	1,454	578	44,341	14.95	2,966
	570,720.87	257,902	102,517	354,060		25,203
THOROLD OFFICE						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2030						
NET SALVAGE PERCENT.. +20						
1991	8,165,266.67	3,284,332	1,117,903	5,414,311	18.72	289,226
1992	137,445.78	53,800	18,312	91,644	18.81	4,872
1993	13,977.44	5,313	1,808	9,374	18.89	496
1994	44,816.20	16,488	5,612	30,241	18.98	1,593
1995	30,336.62	10,775	3,668	20,602	19.06	1,081
1996	58,654.45	20,048	6,824	40,100	19.13	2,096
1997	182,379.46	59,717	20,326	125,577	19.21	6,537
1998	194,143.81	60,643	20,641	134,674	19.28	6,985
1999	178,970.73	53,068	18,063	125,114	19.34	6,469
2000	133,413.00	37,259	12,682	94,048	19.41	4,845
2001	53,789.89	14,041	4,779	38,253	19.47	1,965
2002	250,398.39	60,496	20,591	179,727	19.53	9,203
2003	144,409.49	31,904	10,859	104,668	19.58	5,346
2004	716,474.07	142,252	48,419	524,760	19.63	26,733
2005	313,074.00	54,650	18,601	231,858	19.67	11,787
2006	256,344.59	38,033	12,945	192,130	19.72	9,743

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
THOROLD OFFICE						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2030						
NET SALVAGE PERCENT.. +20						
2007	546,826.98	65,667	22,351	415,110	19.76	21,008
2008	176,114.95	15,802	5,379	135,513	19.79	6,848
2009	130,508.35	7,342	2,499	101,908	19.83	5,139
2010	215,158.00	4,227	1,439	170,688	19.86	8,595
	11,942,502.87	4,035,857	1,373,703	8,180,300		430,567
EASTERN						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2020						
NET SALVAGE PERCENT.. +20						
1960	3,060.34	2,035	586	1,863	8.72	214
1963	543.60	358	103	332	8.85	38
1966	1,623.66	1,058	305	994	8.98	111
1967	3,931.80	2,552	735	2,411	9.02	267
1968	108,039.12	69,838	20,102	66,329	9.05	7,329
1969	26,975.29	17,363	4,998	16,582	9.09	1,824
1970	117,813.30	75,483	21,727	72,524	9.13	7,943
1971	1,838.24	1,172	337	1,133	9.17	124
1972	215.81	137	39	133	9.20	14
1977	6,923.32	4,267	1,228	4,310	9.38	459
1978	43,295.00	26,500	7,628	27,008	9.41	2,870
1981	4,352.59	2,603	749	2,733	9.50	288
1982	5,469.06	3,243	933	3,442	9.53	361
1983	1,866.00	1,096	315	1,177	9.56	123
1984	100.41	58	17	64	9.58	7
1985	5,562.96	3,203	922	3,528	9.61	367
1986	645.12	367	106	410	9.64	43
1987	10,110.53	5,686	1,637	6,452	9.66	668
1988	2,232.54	1,239	357	1,429	9.69	147
1989	2,283.20	1,249	360	1,467	9.71	151
1990	330,166.06	177,949	51,221	212,912	9.73	21,882
1991	8,864.60	4,699	1,353	5,739	9.75	589
1993	10,765.72	5,496	1,582	7,031	9.79	718
1994	5,430.00	2,712	781	3,563	9.81	363
1995	1,120.28	546	157	739	9.83	75
1997	11,518.49	5,307	1,528	7,687	9.86	780
1998	58,274.74	25,956	7,471	39,149	9.88	3,962
1999	250,957.60	107,677	30,994	169,772	9.89	17,166
2000	132,185.12	54,276	15,623	90,125	9.91	9,094
2001	6,680.66	2,609	751	4,594	9.92	463

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
EASTERN						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2020						
NET SALVAGE PERCENT.. +20						
2002	230,181.57	84,768	24,400	159,746	9.93	16,087
2003	37,678.00	12,943	3,726	26,417	9.94	2,658
2004	5,237.27	1,654	476	3,714	9.95	373
2005	39,694.00	11,284	3,248	28,507	9.96	2,862
2006	1,489.90	370	107	1,085	9.97	109
2007	63,139.43	13,125	3,778	46,734	9.97	4,687
2008	8,067.47	1,293	372	6,082	9.98	609
2009	50,037.61	5,230	1,505	38,525	9.98	3,860
	1,598,370.41	737,401	212,254	1,066,442		109,685
KELFIELD						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2020						
NET SALVAGE PERCENT.. +20						
1965	48,922.22	31,991	5,887	33,251	8.94	3,719
1968	204.36	132	24	139	9.05	15
1970	2,267.88	1,453	267	1,547	9.13	169
1978	3,975.11	2,433	448	2,732	9.41	290
1984	1,800.00	1,047	193	1,247	9.58	130
1986	11,269.00	6,413	1,180	7,835	9.64	813
1987	12,330.83	6,934	1,276	8,589	9.66	889
1988	17,342.62	9,624	1,771	12,103	9.69	1,249
1989	1,197.13	655	121	837	9.71	86
1990	189,196.00	101,971	18,765	132,592	9.73	13,627
1991	2,628.00	1,393	256	1,846	9.75	189
1992	49,474.00	25,759	4,740	34,839	9.77	3,566
1995	8,720.28	4,251	782	6,194	9.83	630
1996	1,105.55	525	97	788	9.85	80
1997	44,386.53	20,450	3,763	31,746	9.86	3,220
1998	352.25	157	29	253	9.88	26
1999	223.12	96	18	161	9.89	16
2000	113,471.30	46,592	8,574	82,203	9.91	8,295
2001	31,939.00	12,472	2,295	23,256	9.92	2,344
2002	144,482.79	53,208	9,791	105,795	9.93	10,654
2003	49,165.13	16,889	3,108	36,224	9.94	3,644
2004	1,576.39	498	92	1,169	9.95	117
2005	12,118.00	3,445	634	9,060	9.96	910
2006	690.10	171	31	521	9.97	52
2007	13,055.51	2,714	499	9,945	9.97	997
2008	1,495.99	240	44	1,153	9.98	116

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 472.00 - STRUCTURES AND IMPROVEMENTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
KELFIELD						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2020						
NET SALVAGE PERCENT.. +20						
2009	30,860.28	3,226	594	24,095	9.98	2,414
2010	404,530.74	15,424	2,838	320,786	9.99	32,111
	1,198,780.11	370,163	68,117	890,907		90,368
OTTAWA DEPOT						
INTERIM SURVIVOR CURVE.. IOWA 60-S1.5						
PROBABLE RETIREMENT YEAR.. 12-2020						
NET SALVAGE PERCENT.. +20						
1996	2,810,718.17	1,333,720	301,151	1,947,423	9.85	197,708
1999	22,517.45	9,661	2,181	15,833	9.89	1,601
2004	920.38	291	66	671	9.95	67
2007	180,497.99	37,520	8,472	135,926	9.97	13,634
2008	29,169.43	4,675	1,056	22,280	9.98	2,232
2009	20,897.27	2,184	493	16,225	9.98	1,626
2010	6,753.06	257	58	5,344	9.99	535
	3,071,473.75	1,388,308	313,477	2,143,702		217,403
OTHER						
SURVIVOR CURVE.. IOWA 43-R1						
NET SALVAGE PERCENT.. -5						
1955	25,564.00	20,413	7,801	19,041	10.30	1,849
1960	573.04	429	164	438	12.36	35
1961	205.50	152	58	158	12.79	12
1963	71.80	51	19	56	13.68	4
1965	675.00	468	179	530	14.60	36
1968	652.45	430	164	521	16.04	32
1969	893.64	578	221	717	16.53	43
1970	43,314.17	27,468	10,497	34,983	17.03	2,054
1971	12,797.35	7,956	3,040	10,397	17.54	593
1972	160,367.50	97,664	37,322	131,064	18.06	7,257
1973	788.50	470	180	648	18.59	35
1974	135,542.40	79,037	30,203	112,116	19.12	5,864
1975	234,839.64	133,842	51,147	195,435	19.66	9,941
1976	21,142.98	11,766	4,496	17,704	20.21	876
1977	4,608.10	2,501	956	3,883	20.77	187
1978	10,637.60	5,626	2,150	9,020	21.34	423
1979	41,226.66	21,231	8,113	35,175	21.91	1,605
1980	40,458.11	20,252	7,739	34,742	22.50	1,544

ENBRIDGE GAS DISTRIBUTION, INC.

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RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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 43-R1						
NET SALVAGE PERCENT.. -5						
1981	261,773.76	127,267	48,634	226,228	23.09	9,798
1982	225,642.05	106,450	40,679	196,245	23.68	8,287
1983	67,281.63	30,739	11,747	58,899	24.29	2,425
1984	201,586.15	89,096	34,047	177,618	24.90	7,133
1985	98,621.82	42,095	16,086	87,467	25.52	3,427
1986	146,527.01	60,289	23,039	130,814	26.15	5,002
1987	40,260.31	15,946	6,094	36,180	26.78	1,351
1988	365,693.72	139,127	53,167	330,812	27.42	12,065
1989	120,980.73	44,106	16,855	110,175	28.07	3,925
1990	122,255.51	42,630	16,291	112,077	28.72	3,902
1991	5,730.47	1,907	729	5,288	29.37	180
1992	259,009.23	82,031	31,348	240,612	30.03	8,012
1993	259,599.85	77,971	29,796	242,784	30.70	7,908
1994	253,690.38	72,046	27,532	238,843	31.37	7,614
1995	212,824.27	56,957	21,766	201,700	32.04	6,295
1996	274,841.43	68,992	26,365	262,219	32.72	8,014
1997	749,217.93	175,634	67,117	719,561	33.40	21,544
1998	446,073.05	97,052	37,088	431,289	34.09	12,651
1999	443,971.00	89,113	34,054	432,116	34.78	12,424
2000	855,993.93	157,397	60,148	838,645	35.47	23,644
2002	45,098.43	6,762	2,584	44,769	36.86	1,215
2003	56,290.00	7,464	2,852	56,252	37.57	1,497
2004	441,266.63	50,860	19,436	443,894	38.28	11,596
2007	1,110,900.12	69,718	26,642	1,139,803	40.43	28,192
2008	618,050.32	27,769	10,612	638,341	41.16	15,509
2009	335,611.03	9,095	3,476	348,916	41.89	8,329
2010	693,870.80	6,266	2,395	726,170	42.63	17,034
	9,447,020.00	2,185,113	835,027	9,084,344		281,363
	81,988,456.46	30,949,778	5,258,749	62,693,773		6,088,093

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT.. 10.3 7.43

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 473.00 - SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-L1.5						
NET SALVAGE PERCENT.. -45						
1954	1,375,060.32	1,350,825	1,483,289	510,548	12.90	39,577
1955	390,704.82	380,420	417,724	148,798	13.14	11,324
1956	824,390.15	794,918	872,869	322,497	13.40	24,067
1957	1,557,351.14	1,487,562	1,633,434	624,725	13.65	45,767
1958	1,664,865.89	1,575,171	1,729,634	684,422	13.90	49,239
1959	1,097,949.78	1,028,450	1,129,301	462,726	14.16	32,678
1960	1,469,527.14	1,362,656	1,496,280	634,534	14.42	44,004
1961	2,305,539.11	2,116,975	2,324,568	1,018,464	14.67	69,425
1962	3,321,611.71	3,018,639	3,314,650	1,501,687	14.93	100,582
1963	2,709,710.89	2,437,012	2,675,988	1,253,093	15.19	82,495
1964	1,188,962.42	1,057,671	1,161,388	562,608	15.46	36,391
1965	1,978,747.27	1,741,594	1,912,377	956,807	15.72	60,866
1966	2,796,471.96	2,434,958	2,673,733	1,381,151	15.98	86,430
1967	3,368,292.36	2,901,110	3,185,596	1,698,428	16.24	104,583
1968	4,790,118.17	4,078,845	4,478,822	2,466,849	16.51	149,415
1969	4,907,017.24	4,132,138	4,537,341	2,577,834	16.77	153,717
1970	4,197,486.34	3,493,568	3,836,152	2,250,203	17.04	132,054
1971	7,140,091.45	5,872,814	6,448,709	3,904,424	17.31	225,559
1972	7,326,937.96	5,954,786	6,538,720	4,085,340	17.58	232,386
1973	10,953,607.38	8,795,062	9,657,517	6,225,214	17.85	348,751
1974	8,143,263.28	6,455,877	7,088,948	4,718,784	18.13	260,275
1975	9,661,451.52	7,561,414	8,302,896	5,706,209	18.41	309,952
1976	9,972,568.61	7,700,070	8,455,148	6,005,076	18.70	321,127
1977	11,002,607.67	8,379,724	9,201,450	6,752,331	18.99	355,573
1978	13,646,154.83	10,239,733	11,243,854	8,543,071	19.30	442,646
1979	22,162,057.48	16,380,808	17,987,130	14,147,853	19.61	721,461
1980	23,589,254.20	17,162,067	18,845,000	15,359,419	19.93	770,668
1981	25,067,158.83	17,937,432	19,696,399	16,650,981	20.26	821,865
1982	20,292,768.89	14,263,534	15,662,234	13,762,281	20.61	667,748
1983	23,349,772.82	16,107,549	17,687,075	16,170,096	20.97	771,106
1984	31,038,230.19	20,983,783	23,041,478	21,963,956	21.35	1,028,757
1985	25,363,218.24	16,788,548	18,434,854	18,341,812	21.74	843,690
1986	32,195,819.36	20,821,036	22,862,772	23,821,166	22.16	1,074,962
1987	33,623,958.17	21,220,500	23,301,408	25,453,331	22.59	1,126,752
1988	37,309,414.63	22,924,303	25,172,288	28,926,363	23.05	1,254,940
1989	37,040,676.84	22,114,673	24,283,265	29,425,716	23.53	1,250,562
1990	43,008,724.90	24,882,698	27,322,726	35,039,925	24.04	1,457,568
1991	48,568,980.04	27,148,846	29,811,095	40,613,926	24.58	1,652,316
1992	60,448,663.62	32,562,184	35,755,272	51,895,290	25.14	2,064,252
1993	65,776,976.52	34,001,764	37,336,019	58,040,597	25.74	2,254,879
1994	77,904,278.04	38,519,770	42,297,066	70,664,137	26.36	2,680,734
1995	83,485,978.05	39,282,240	43,134,305	77,920,363	27.02	2,883,803
1996	87,516,145.33	39,021,261	42,847,734	84,050,677	27.70	3,034,320

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 473.00 - SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-L1.5						
NET SALVAGE PERCENT.. -45						
1997	64,415,823.19	27,086,854	29,743,024	63,659,920	28.40	2,241,546
1998	74,799,406.06	29,473,771	32,364,005	76,095,134	29.13	2,612,260
1999	86,638,135.41	31,783,200	34,899,899	90,725,397	29.88	3,036,325
2000	103,836,807.85	35,194,188	38,645,373	111,917,998	30.65	3,651,484
2001	88,791,584.70	27,552,029	30,253,815	98,493,983	31.44	3,132,760
2002	71,333,322.82	20,014,347	21,976,978	81,456,340	32.26	2,524,995
2003	91,572,174.00	22,904,490	25,150,532	107,629,120	33.10	3,251,635
2004	32,408,883.32	7,095,925	7,791,760	39,201,121	33.96	1,154,332
2005	76,785,648.18	14,362,755	15,771,185	95,568,005	34.84	2,743,054
2006	88,514,405.34	13,668,837	15,009,220	113,336,668	35.74	3,171,143
2007	89,078,390.52	10,785,166	11,842,773	117,320,893	36.66	3,200,243
2008	85,369,079.63	7,427,110	8,155,421	115,629,744	37.60	3,075,259
2009	95,267,455.47	5,007,496	5,498,537	132,639,273	38.55	3,440,707
2010	80,202,216.60	1,424,592	1,564,290	114,728,924	39.51	2,903,795
	2,024,545,898.65	792,255,748	869,945,320	2,065,646,233		70,218,804
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					29.4	3.47

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 475.10 - MAINS - CAST IRON

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 43-R2						
PROBABLE RETIREMENT YEAR.. 12-2016						
NET SALVAGE PERCENT.. -125						
1954	4,812,965.10	9,726,437	8,864,746-	19,693,917	4.33	4,548,249
1956	98,858.71	198,868	181,250-	403,682	4.48	90,108
1958	1,339.80	2,683	2,445-	5,460	4.62	1,182
1982	22,762.08	41,904	38,192-	89,407	5.67	15,768
1983	523,645.96	958,115	873,233-	2,051,436	5.69	360,534
2002	946.13	1,240	1,130-	3,259	5.91	551
2005	12,524.24	13,391	12,205-	40,385	5.93	6,810
2010	2,917.15	509	463-	7,027	5.95	1,181
	5,475,959.17	10,943,147	9,973,664-	22,294,573		5,024,383
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					4.4	91.75

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 475.20 - MAINS - BARE STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 40-R0.5						
PROBABLE RETIREMENT YEAR.. 12-2016						
NET SALVAGE PERCENT.. -125						
1954	3,998,454.09	7,841,458	5,144,248	3,852,274	4.97	775,105
1956	1,027,729.08	2,007,802	1,317,183	995,207	5.05	197,071
1958	302,918.18	589,541	386,758	294,808	5.12	57,580
1967	50,478.75	96,294	63,172	50,405	5.37	9,386
1983	3,159.72	5,646	3,704	3,405	5.65	603
2005	113,491.85	118,853	77,971	177,386	5.80	30,584
2006	1,431,562.45	1,342,101	880,461	2,340,555	5.81	402,849
2007	2,186,793.24	1,765,005	1,157,900	3,762,385	5.81	647,571
2010	35.33	6	4	76	5.82	13
	9,114,622.69	13,766,706	9,031,401	11,476,500		2,120,762

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT.. 5.4 23.27

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 475.21 - MAINS - COATED STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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 61-R3						
NET SALVAGE PERCENT.. -90						
1955	20,682.00	29,549	24,102	15,194	15.13	1,004
1956	454,363.03	641,243	523,036	340,254	15.69	21,686
1957	1,521,812.04	2,120,237	1,729,391	1,162,052	16.27	71,423
1958	2,087,151.76	2,869,539	2,340,567	1,625,021	16.86	96,383
1959	33,457,103.89	45,373,286	37,009,152	26,559,345	17.46	1,521,154
1960	8,575,207.68	11,463,844	9,350,593	6,942,302	18.08	383,977
1961	10,276,607.22	13,536,676	11,041,318	8,484,236	18.71	453,460
1962	10,764,673.03	13,961,544	11,387,866	9,065,013	19.36	468,234
1963	12,845,966.69	16,396,849	13,374,246	11,033,091	20.02	551,103
1964	5,600,017.45	7,031,147	5,735,022	4,905,011	20.69	237,072
1965	5,086,518.26	6,278,661	5,121,250	4,543,135	21.37	212,594
1966	9,033,911.08	10,957,086	8,937,251	8,227,180	22.06	372,946
1967	9,373,988.25	11,162,245	9,104,591	8,705,987	22.77	382,345
1968	8,869,262.93	10,365,082	8,454,378	8,397,222	23.48	357,633
1969	10,451,851.66	11,976,871	9,769,049	10,089,469	24.21	416,748
1970	13,668,371.82	15,347,695	12,518,493	13,451,413	24.95	539,135
1971	19,899,826.08	21,886,127	17,851,627	19,958,043	25.69	776,880
1972	13,555,229.49	14,587,338	11,898,301	13,856,635	26.45	523,880
1973	16,858,338.04	17,742,844	14,472,119	17,558,723	27.21	645,304
1974	11,117,110.88	11,430,447	9,323,353	11,799,158	27.99	421,549
1975	6,995,961.48	7,023,134	5,728,486	7,563,841	28.77	262,907
1976	3,633,992.12	3,558,692	2,902,681	4,001,904	29.56	135,382
1977	6,254,391.75	5,969,004	4,868,675	7,014,669	30.36	231,050
1978	5,136,752.41	4,772,752	3,892,941	5,866,889	31.17	188,222
1979	5,783,604.02	5,225,966	4,262,609	6,726,239	31.99	210,261
1980	8,449,567.10	7,419,117	6,051,473	10,002,704	32.81	304,868
1981	7,122,608.49	6,067,636	4,949,125	8,583,831	33.65	255,092
1982	7,352,952.64	6,071,487	4,952,266	9,018,344	34.49	261,477
1983	9,414,993.42	7,524,971	6,137,814	11,750,673	35.34	332,503
1984	5,677,033.82	4,385,304	3,576,915	7,209,449	36.20	199,156
1985	8,800,349.47	6,562,192	5,352,514	11,368,150	37.06	306,750
1986	8,778,770.56	6,308,249	5,145,383	11,534,281	37.93	304,094
1987	25,977,515.20	17,954,697	14,644,919	34,712,360	38.81	894,418
1988	9,604,938.71	6,372,320	5,197,643	13,051,741	39.70	328,759
1989	30,168,371.70	19,178,667	15,643,262	41,676,644	40.59	1,026,771
1990	31,319,791.98	19,032,912	15,524,376	43,983,229	41.49	1,060,092
1991	69,704,461.13	40,404,330	32,956,176	99,482,300	42.39	2,346,834
1992	56,418,087.79	31,086,366	25,355,890	81,838,477	43.31	1,889,598
1993	15,236,787.45	7,963,537	6,495,535	22,454,361	44.22	507,787
1994	17,060,135.80	8,422,521	6,869,909	25,544,349	45.15	565,766
1995	15,246,702.81	7,085,463	5,779,325	23,189,410	46.08	503,242
1996	26,244,188.83	11,435,800	9,327,719	40,536,240	47.01	862,290
1997	13,184,751.41	5,359,166	4,371,255	20,679,773	47.95	431,278

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 475.21 - MAINS - COATED STEEL

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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 61-R3						
NET SALVAGE PERCENT.. -90						
1998	24,981,157.67	9,422,593	7,685,627	39,778,573	48.89	813,634
1999	28,665,753.99	9,964,359	8,127,524	46,337,409	49.84	929,723
2000	25,252,852.33	8,030,963	6,550,531	41,429,888	50.79	815,710
2001	37,783,177.86	10,885,938	8,879,219	62,908,819	51.75	1,215,629
2002	46,384,439.31	11,976,926	9,769,094	78,361,341	52.71	1,486,650
2003	13,808,186.42	3,148,267	2,567,914	23,667,640	53.68	440,902
2004	16,553,642.72	3,279,177	2,674,692	28,777,229	54.64	526,670
2005	21,576,108.65	3,622,283	2,954,549	38,040,057	55.61	684,051
2006	46,450,757.46	6,380,941	5,204,675	83,051,764	56.59	1,467,605
2007	66,432,543.90	7,117,649	5,805,578	120,416,255	57.56	2,092,013
2008	42,472,101.02	3,254,510	2,654,572	78,042,420	58.54	1,333,147
2009	29,441,111.70	1,357,059	1,106,898	54,831,214	59.52	921,223
2010	16,950,773.41	258,618	210,945	31,995,525	60.51	528,764
	1,013,837,309.81	569,041,876	464,144,414	1,462,146,475		35,118,828
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					41.6	3.46

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 475.30 - MAINS - PLASTIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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.. -85						
1970	17,524.99	20,850	20,788	11,633	19.63	593
1971	170,927.02	199,329	198,733	117,482	20.33	5,779
1972	409,522.46	467,790	466,390	291,227	21.04	13,842
1973	2,574,571.18	2,877,683	2,869,072	1,893,885	21.77	86,995
1974	3,816,219.97	4,171,829	4,159,346	2,900,661	22.50	128,918
1975	4,463,691.19	4,766,997	4,752,733	3,505,096	23.25	150,757
1976	5,218,685.51	5,439,866	5,423,588	4,230,980	24.01	176,217
1977	6,195,271.07	6,299,562	6,280,712	5,180,539	24.77	209,146
1978	7,839,559.84	7,765,731	7,742,493	6,760,693	25.55	264,606
1979	12,554,859.33	12,103,092	12,066,876	11,159,614	26.34	423,676
1980	23,453,620.43	21,978,798	21,913,030	21,476,168	27.14	791,311
1981	10,185,896.40	9,271,203	9,243,460	9,600,448	27.94	343,609
1982	14,590,791.67	12,878,073	12,839,538	14,153,427	28.76	492,122
1983	12,927,736.48	11,049,336	11,016,273	12,900,039	29.59	435,959
1984	13,680,605.18	11,310,899	11,277,053	14,032,067	30.42	461,278
1985	11,846,542.77	9,459,867	9,431,560	12,484,544	31.26	399,378
1986	12,763,076.10	9,826,713	9,797,308	13,814,383	32.11	430,221
1987	18,145,068.10	13,445,813	13,405,579	20,162,797	32.97	611,550
1988	16,045,984.92	11,420,738	11,386,563	18,298,509	33.84	540,736
1989	25,078,994.07	17,107,648	17,056,456	29,339,683	34.72	845,037
1990	19,959,571.94	13,024,629	12,985,655	23,939,553	35.60	672,459
1991	24,902,772.66	15,504,902	15,458,506	30,611,623	36.49	838,904
1992	20,301,996.30	12,025,542	11,989,558	25,569,135	37.39	683,850
1993	22,797,943.09	12,806,380	12,768,059	29,408,136	38.30	767,836
1994	25,624,013.06	13,609,336	13,568,612	33,835,812	39.21	862,938
1995	37,105,636.79	18,558,978	18,503,443	50,141,985	40.13	1,249,489
1996	43,426,407.66	20,361,883	20,300,954	60,037,900	41.06	1,462,199
1997	39,877,999.15	17,451,310	17,399,090	56,375,208	41.99	1,342,587
1998	53,459,880.91	21,703,776	21,638,831	77,261,949	42.93	1,799,719
1999	55,871,378.17	20,916,344	20,853,755	82,508,295	43.87	1,880,745
2000	57,340,549.28	19,653,445	19,594,635	86,485,381	44.81	1,930,046
2001	67,933,421.35	21,091,086	21,027,975	104,648,854	45.77	2,286,407
2002	52,389,851.10	14,591,490	14,547,827	82,373,398	46.72	1,763,129
2003	54,090,485.56	13,299,958	13,260,160	86,807,238	47.69	1,820,240
2004	32,743,360.13	6,993,409	6,972,483	53,602,733	48.65	1,101,803
2005	60,030,865.77	10,863,606	10,831,099	100,226,003	49.62	2,019,871
2006	109,198,893.59	16,197,799	16,149,330	185,868,623	50.59	3,674,019
2007	106,733,135.48	12,313,375	12,276,529	185,179,772	51.57	3,590,843
2008	75,188,541.43	6,221,889	6,203,271	132,895,531	52.54	2,529,416

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 475.30 - MAINS - PLASTIC

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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.. -85						
2009	81,485,550.36	4,056,636	4,044,497	146,703,771	53.52	2,741,102
2010	86,792,797.51	1,430,649	1,426,368	159,140,307	54.51	2,919,470
	1,329,234,199.97	464,538,239	463,148,188	1,995,935,082		44,748,802
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					44.6	3.37

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 475.EN - MAINS - ENVISION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
2004	29,459,720.88	7,659,527	7,382,351	22,077,370	18.50	1,193,371
2005	18,650,617.10	4,103,136	3,954,656	14,695,961	19.50	753,639
2006	18,244,834.93	3,284,070	3,165,229	15,079,606	20.50	735,591
2007	15,875,281.79	2,222,539	2,142,112	13,733,170	21.50	638,752
2008	11,772,203.07	1,177,220	1,134,620	10,637,583	22.50	472,781
2009	17,976,461.62	1,078,588	1,039,557	16,936,905	23.50	720,719
2010	11,575,633.87	231,513	223,135	11,352,499	24.50	463,367
	123,554,753.26	19,756,593	19,041,660	104,513,093		4,978,220
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					21.0	4.03

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 476.00 - COMPANY NGV COMPRESSOR STATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-R3						
NET SALVAGE PERCENT.. 0						
1991	877,259.46	771,988	782,025	95,234	1.92	49,601
1994	277,034.49	225,091	228,017	49,017	3.00	16,339
1996	29,028.16	21,771	22,054	6,974	4.00	1,744
1997	188,223.21	134,226	135,971	52,252	4.59	11,384
1998	94,684.97	63,794	64,623	30,062	5.22	5,759
1999	46,604.73	29,390	29,772	16,833	5.91	2,848
2001	302,950.58	162,836	164,953	137,998	7.40	18,648
2005	513,802.57	167,952	170,136	343,667	10.77	31,910
2010	263,877.76	8,080	8,185	255,693	15.51	16,486
	2,593,465.93	1,585,128	1,605,736	987,730		154,719
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					6.4	5.97

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 477.00 - MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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 33-L1.5						
NET SALVAGE PERCENT.. -5						
1955	118,200.17	91,917	124,110			
1956	13,063.71	10,067	13,717			
1957	503,196.88	384,099	528,357			
1958	218,728.25	165,427	229,665			
1959	25,693.60	19,236	26,978			
1960	190,377.25	141,139	199,896			
1961	60,592.69	44,459	63,622			
1962	153,425.59	111,402	161,097			
1963	152,060.76	109,248	159,664			
1964	86,856.71	61,712	91,200			
1965	154,693.34	108,679	162,428			
1966	95,012.46	65,995	99,763			
1967	216,244.21	148,481	227,056			
1968	140,527.66	95,329	147,554			
1969	232,628.93	155,882	244,260			
1970	183,146.84	121,269	192,304			
1971	295,728.47	193,367	310,515			
1972	878,274.69	567,008	922,188			
1973	349,398.01	222,568	366,868			
1974	679,123.88	426,985	713,080			
1975	736,842.97	457,178	773,685			
1976	618,854.14	378,656	645,855	3,942	13.77	286
1977	1,072,986.55	647,647	1,104,660	21,976	14.03	1,566
1978	1,375,922.97	818,679	1,396,381	48,338	14.30	3,380
1979	1,243,907.78	729,432	1,244,156	61,947	14.57	4,252
1980	1,483,393.63	856,660	1,461,163	96,400	14.85	6,492
1981	1,810,654.41	1,029,531	1,756,021	145,166	15.13	9,595
1982	1,719,906.60	962,058	1,640,935	164,967	15.42	10,698
1983	1,756,802.17	966,482	1,648,481	196,161	15.71	12,486
1984	4,359,220.49	2,356,562	4,019,473	557,709	16.01	34,835
1985	3,809,858.44	2,020,777	3,446,741	553,610	16.33	33,901
1986	3,214,931.24	1,671,467	2,850,940	524,738	16.66	31,497
1987	6,280,384.92	3,195,319	5,450,099	1,144,305	17.01	67,272
1988	5,230,266.94	2,601,127	4,436,615	1,055,165	17.37	60,746
1989	6,150,887.33	2,984,570	5,090,635	1,367,797	17.75	77,059
1990	11,156,952.99	5,268,146	8,985,619	2,729,182	18.16	150,285
1991	9,450,239.07	4,332,968	7,390,532	2,532,219	18.59	136,214
1992	6,681,535.03	2,967,814	5,062,055	1,953,557	19.04	102,603
1993	8,954,181.66	3,837,664	6,545,716	2,856,175	19.53	146,246
1994	10,439,797.06	4,301,624	7,337,070	3,624,717	20.05	180,784
1995	11,991,224.85	4,731,114	8,069,630	4,521,156	20.60	219,474
1996	12,750,685.77	4,787,360	8,165,566	5,222,654	21.20	246,352
1997	10,356,057.25	3,683,955	6,283,542	4,590,318	21.82	210,372

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 477.00 - MEASURING AND REGULATING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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 33-L1.5						
NET SALVAGE PERCENT.. -5						
1998	14,314,273.29	4,791,410	8,172,474	6,857,513	22.48	305,050
1999	17,504,814.37	5,475,051	9,338,526	9,041,529	23.17	390,226
2000	18,280,431.89	5,298,821	9,037,940	10,156,513	23.89	425,137
2001	9,701,072.14	2,580,451	4,401,349	5,784,777	24.64	234,772
2002	10,459,382.00	2,525,941	4,308,374	6,673,977	25.41	262,652
2003	13,421,103.63	2,899,603	4,945,711	9,146,448	26.21	348,968
2004	17,193,858.86	3,260,652	5,561,534	12,492,018	27.04	461,983
2005	12,493,778.70	2,027,459	3,458,138	9,660,330	27.90	346,248
2006	13,760,480.89	1,847,675	3,151,489	11,297,016	28.78	392,530
2007	15,403,627.34	1,627,247	2,775,515	13,398,294	29.68	451,425
2008	19,364,142.48	1,472,469	2,511,518	17,820,832	30.61	582,190
2009	16,862,292.28	777,976	1,326,956	16,378,451	31.55	519,127
2010	8,748,080.73	133,649	227,959	8,957,526	32.52	275,447
	314,899,806.96	93,549,463	159,007,375	171,637,423		6,742,150
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					25.5	2.14

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 478.00 - METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-S2						
NET SALVAGE PERCENT.. +5						
1954	10,025.00	9,524	9,524			
1962	8,440.16	8,018	8,018			
1963	71,576.50	67,998	67,998			
1964	83,934.89	79,738	79,738			
1965	52,740.32	50,103	50,103			
1966	118,710.72	112,775	112,775			
1967	19,957.18	18,959	18,959			
1968	339,179.85	322,221	322,221			
1969	296,989.83	282,140	282,140			
1970	338,000.18	321,100	321,100			
1971	966,951.47	916,307	507,389	411,215	0.05	411,215
1972	1,215,930.58	1,139,540	631,000	524,134	0.27	524,134
1973	1,327,416.32	1,232,672	682,570	578,476	0.45	578,476
1974	862,790.94	793,423	439,344	380,307	0.64	380,307
1975	1,648,421.14	1,500,228	830,724	735,276	0.84	735,276
1976	1,910,875.32	1,720,934	952,936	862,396	1.04	829,227
1977	1,315,708.89	1,172,428	649,211	600,712	1.24	484,445
1978	1,008,175.71	887,850	491,631	466,136	1.46	319,271
1979	2,775,918.41	2,415,604	1,337,597	1,299,525	1.68	773,527
1980	3,612,986.97	3,104,549	1,719,088	1,713,250	1.91	896,990
1981	2,685,573.66	2,278,306	1,261,571	1,289,724	2.14	602,675
1982	3,164,885.89	2,647,348	1,465,921	1,540,721	2.39	644,653
1983	3,979,788.59	3,279,843	1,816,154	1,964,645	2.65	741,375
1984	4,337,535.56	3,519,043	1,948,607	2,172,052	2.92	743,853
1985	4,975,932.70	3,970,794	2,198,756	2,528,380	3.20	790,119
1986	6,460,736.50	5,063,602	2,803,879	3,333,821	3.50	952,520
1987	8,832,859.36	6,788,494	3,759,007	4,632,209	3.82	1,212,620
1988	11,982,828.91	9,021,572	4,995,533	6,388,154	4.15	1,539,314
1989	7,781,495.34	5,729,126	3,172,401	4,220,020	4.50	937,782
1990	6,805,968.54	4,891,279	2,708,458	3,757,212	4.87	771,501
1991	9,875,457.66	6,909,611	3,826,073	5,555,612	5.27	1,054,196
1992	7,407,889.86	5,035,328	2,788,222	4,249,273	5.69	746,797
1993	8,412,145.93	5,538,136	3,066,643	4,924,896	6.14	802,100
1994	12,378,531.18	7,867,175	4,356,307	7,403,298	6.62	1,118,323
1995	15,161,497.33	9,261,401	5,128,334	9,275,088	7.14	1,299,032
1996	12,673,049.43	7,410,249	4,103,292	7,936,105	7.69	1,032,003
1997	13,423,055.25	7,472,615	4,137,826	8,614,076	8.28	1,040,347
1998	12,613,859.42	6,638,674	3,676,046	8,307,120	8.92	931,291
1999	11,266,234.15	5,570,871	3,084,770	7,618,152	9.59	794,385
2000	14,741,466.05	6,778,126	3,753,265	10,251,128	10.32	993,326
2001	12,252,326.51	5,191,311	2,874,595	8,765,115	11.08	791,075
2002	11,252,854.71	4,329,536	2,397,403	8,292,809	11.90	696,875
2003	14,056,516.48	4,840,713	2,680,458	10,673,233	12.75	837,116

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 478.00 - METERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-S2						
NET SALVAGE PERCENT.. +5						
2004	8,391,034.76	2,530,946	1,401,466	6,570,017	13.65	481,320
2005	14,932,095.69	3,844,268	2,128,694	12,056,797	14.58	826,941
2006	21,487,666.67	4,562,369	2,526,330	17,886,953	15.53	1,151,768
2007	24,128,017.96	3,999,822	2,214,830	20,706,787	16.51	1,254,197
2008	27,675,519.54	3,286,468	1,819,822	24,471,922	17.50	1,398,396
2009	19,986,007.62	1,424,003	788,516	18,198,191	18.50	983,686
2010	16,637,582.29	395,143	218,803	15,586,900	19.50	799,328
	367,745,143.92	166,232,283	92,616,048	256,741,838		33,901,782
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					7.6	9.22

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 483.01 - OFFICE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
1996	385,394.24	372,549	385,394			
1997	100,150.15	90,135	100,150			
1998	49,267.44	41,056	49,267			
1999	140,914.85	108,035	140,915			
2000	60,437.45	42,306	60,437			
2001	1,770,636.29	1,121,397	1,770,636			
2002	242,501.21	137,418	242,501			
2003	11,853.97	5,927	11,854			
2004	107,938.54	46,773	96,624	11,315	8.50	1,331
2005	25,456.64	9,334	19,282	6,175	9.50	650
2006	12,641.99	3,793	7,836	4,806	10.50	458
2007	583.18	136	281	302	11.50	26
2008	20,360.85	3,394	7,011	13,350	12.50	1,068
2009	11,149.85	1,115	2,304	8,846	13.50	655
2010	4,487.98	150	309	4,179	14.50	288
	2,943,774.63	1,983,518	2,894,801	48,973		4,476
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					10.9	0.15

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 483.02 - FURNISHINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
1991	1,488,905.17	1,451,683	1,064,769	424,136	0.50	424,136
1992	1,112,779.89	1,029,321	754,979	357,801	1.50	238,534
1993	1,038,473.90	908,665	666,481	371,993	2.50	148,797
1994	1,515,996.37	1,250,697	917,352	598,644	3.50	171,041
1995	1,113,265.78	862,781	632,826	480,440	4.50	106,764
1996	1,462,961.90	1,060,647	777,955	685,007	5.50	124,547
1997	559,095.36	377,389	276,804	282,291	6.50	43,429
1998	202,277.73	126,424	92,729	109,549	7.50	14,607
1999	128,584.12	73,936	54,230	74,354	8.50	8,748
2000	446,877.33	234,611	172,081	274,796	9.50	28,926
2001	152,668.00	72,517	53,189	99,479	10.50	9,474
2002	50,799.01	21,590	15,836	34,963	11.50	3,040
2003	355,112.29	133,167	97,674	257,438	12.50	20,595
2004	155,558.78	50,557	37,082	118,477	13.50	8,776
2005	728,085.93	200,224	146,859	581,227	14.50	40,085
2006	254,420.69	57,245	41,988	212,433	15.50	13,705
2007	1,025,706.69	179,499	131,657	894,050	16.50	54,185
2008	446,161.74	55,770	40,906	405,256	17.50	23,157
2009	1,024,117.26	76,809	56,337	967,780	18.50	52,312
2010	1,926,145.62	48,154	35,319	1,890,826	19.50	96,965
	15,187,993.56	8,271,686	6,067,053	9,120,940		1,631,823

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT.. 5.6 10.74

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 484.00 - TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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 11-L1.5						
NET SALVAGE PERCENT.. 0						
1985	48,850.40	41,922	28,809	20,041	1.56	12,847
1986	8,567.45	7,236	4,973	3,594	1.71	2,102
1987	39,692.54	32,909	22,615	17,078	1.88	9,084
1988	41,937.65	34,084	23,423	18,515	2.06	8,988
1989	196,560.86	156,533	107,570	88,991	2.24	39,728
1990	77,124.31	60,017	41,244	35,880	2.44	14,705
1991	371,911.87	282,653	194,241	177,671	2.64	67,300
1992	40,778.93	30,214	20,763	20,016	2.85	7,023
1993	133,496.38	96,117	66,052	67,444	3.08	21,897
1994	375,628.67	262,598	180,459	195,170	3.31	58,964
1995	169,665.33	114,755	78,860	90,805	3.56	25,507
1996	218,877.66	143,067	98,317	120,561	3.81	31,643
1997	743,942.70	469,361	322,548	421,395	4.06	103,792
1998	620,721.24	376,381	258,651	362,070	4.33	83,619
1999	280,162.79	163,259	112,193	167,970	4.59	36,595
2000	296,707.42	165,616	113,812	182,895	4.86	37,633
2001	268,759.64	143,176	98,391	170,369	5.14	33,146
2002	376,457.41	190,280	130,762	245,695	5.44	45,165
2003	831,449.70	393,808	270,627	560,823	5.79	96,861
2004	1,506,546.02	657,396	451,766	1,054,780	6.20	170,126
2005	1,680,705.76	660,064	453,600	1,227,106	6.68	183,699
2006	7,289,333.09	2,471,740	1,698,595	5,590,738	7.27	769,015
2007	5,618,787.02	1,552,808	1,067,099	4,551,688	7.96	571,820
2008	8,866,448.24	1,821,612	1,251,823	7,614,625	8.74	871,239
2009	7,200,043.55	922,902	634,223	6,565,821	9.59	684,653
2010	3,654,039.27	159,462	109,584	3,544,456	10.52	336,925
	40,957,195.90	11,409,970	7,841,000	33,116,196		4,324,076
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					7.7	10.56

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 484.01 - TRANSPORTATION - COMPANY NGV KITS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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 9-L1						
NET SALVAGE PERCENT.. 0						
1981	4,556.26	4,556	4,556			
1982	6,636.55	6,637	6,637			
1983	11,431.95	11,114	11,432			
1984	39,430.77	37,634	39,431			
1985	39,226.60	36,742	39,227			
1986	20,833.72	19,144	20,810	24	0.73	24
1987	136,576.80	122,919	133,619	2,958	0.90	2,958
1988	94,868.70	83,484	90,751	4,118	1.08	3,813
1989	151,889.87	130,625	141,996	9,894	1.26	7,852
1990	257,902.70	216,638	235,496	22,407	1.44	15,560
1991	232,144.87	190,101	206,649	25,496	1.63	15,642
1992	272,689.09	217,243	236,154	36,535	1.83	19,964
1993	392,697.69	303,685	330,121	62,577	2.04	30,675
1994	648,602.97	486,452	528,798	119,805	2.25	53,247
1995	432,132.84	313,054	340,306	91,827	2.48	37,027
1996	552,563.88	386,181	419,798	132,766	2.71	48,991
1997	270,835.56	182,061	197,910	72,926	2.95	24,721
1998	350,969.13	225,789	245,444	105,525	3.21	32,874
1999	262,531.75	161,019	175,036	87,496	3.48	25,143
2000	9,046.77	5,267	5,725	3,322	3.76	884
2002	251,034.53	129,142	140,384	110,651	4.37	25,321
2003	167,375.58	79,783	86,728	80,648	4.71	17,123
2004	214,237.82	93,789	101,954	112,284	5.06	22,191
2005	432,151.90	170,942	185,823	246,329	5.44	45,281
2006	1,091,091.92	381,882	415,125	675,967	5.85	115,550
2007	350,757.56	103,670	112,695	238,063	6.34	37,549
2008	358,634.14	82,088	89,234	269,400	6.94	38,818
2009	270,707.95	39,705	43,161	227,547	7.68	29,629
2010	401,725.94	20,532	22,319	379,407	8.54	44,427
	7,725,285.81	4,241,878	4,607,319	3,117,967		695,264

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT.. 4.5 9.00

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 484.02 - TRANSPORTATION - COMPANY NGV CYLINDERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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 7-S2.5						
NET SALVAGE PERCENT.. 0						
1991	106,383.96	106,384	106,384			
1992	55,855.39	55,855	55,855			
1993	44,063.57	44,064	44,064			
1994	82,794.42	82,794	82,794			
1995	44,453.22	44,453	44,453			
1996	82,147.02	82,147	82,147			
1997	52,226.12	51,554	52,226			
1998	50,541.63	48,592	50,542			
1999	86,150.36	80,489	86,150			
2000	18,051.76	16,375	18,052			
2001	13,916.84	12,207	13,917			
2002	23,743.61	20,013	23,126	618	1.10	562
2003	16,122.29	12,898	14,904	1,218	1.40	870
2004	30,440.96	22,700	26,231	4,210	1.78	2,365
2005	27,482.43	18,570	21,458	6,024	2.27	2,654
2006	95,084.41	55,828	64,511	30,573	2.89	10,579
2009	125.00	27	31	94	5.51	17
2010	2,886.00	206	238	2,648	6.50	407
	832,468.99	755,156	787,083	45,386		17,454
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					2.6	2.10

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 485.00 - HEAVY WORK EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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 15-L2						
NET SALVAGE PERCENT.. +25						
1955	14,329.48	10,747	10,747			
1969	15,675.50	11,553	11,757			
1971	16,113.47	11,610	12,085			
1972	30,265.95	21,549	22,699			
1973	98,939.80	69,604	74,205			
1974	26,334.54	18,289	19,751			
1975	16,500.00	11,319	12,375			
1976	24,559.52	16,615	18,420			
1977	76,324.54	50,947	57,243			
1978	57,465.57	37,812	43,099			
1979	108,154.68	70,139	81,116			
1980	2,741.34	1,750	2,056			
1981	31,912.98	20,057	23,935			
1982	72,325.40	44,733	54,244			
1983	208,225.12	126,601	156,169			
1984	36,924.61	22,044	27,693			
1985	325,703.20	190,861	244,277			
1986	168,353.86	96,719	126,265			
1987	59,115.70	33,282	43,958	379	3.74	101
1988	251,193.99	138,282	182,641	5,754	3.99	1,442
1989	448,403.02	241,465	318,924	17,378	4.23	4,108
1990	209,138.12	110,006	145,294	11,560	4.48	2,580
1991	228,198.59	117,066	154,619	16,530	4.74	3,487
1992	306,320.36	153,313	202,494	27,246	4.99	5,460
1993	262,678.62	128,318	169,481	27,528	5.23	5,263
1994	525,469.13	250,125	330,362	63,740	5.48	11,631
1995	461,006.94	213,908	282,527	63,228	5.72	11,054
1996	689,153.93	311,499	411,423	105,442	5.96	17,692
1997	265,844.72	116,972	154,495	44,889	6.20	7,240
1998	623,459.18	265,907	351,206	116,388	6.47	17,989
1999	381,691.69	157,256	207,701	78,568	6.76	11,622
2000	49,939.20	19,726	26,054	11,400	7.10	1,606
2001	343,488.60	128,808	170,128	87,488	7.50	11,665
2002	365,053.20	128,317	169,479	104,311	7.97	13,088
2003	636,791.12	205,685	271,666	205,927	8.54	24,113
2004	2,372,944.38	686,967	907,336	872,372	9.21	94,720
2005	749,230.38	188,806	249,372	312,551	9.96	31,381
2006	764,138.88	160,853	212,452	360,652	10.79	33,425
2007	880,395.94	147,464	194,768	465,529	11.65	39,960

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 485.00 - HEAVY WORK EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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 15-L2						
NET SALVAGE PERCENT.. +25						
2008	2,498,998.09	304,884	402,687	1,471,562	12.56	117,163
2009	1,863,379.05	137,895	182,130	1,215,404	13.52	89,897
2010	2,720,656.46	68,010	89,827	1,950,666	14.50	134,529
	19,287,538.85	5,247,763	6,829,160	7,636,495		691,216
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					11.0	3.58

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 486.00 - TOOLS AND WORK EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
1982	10,998.17	10,998	10,998			
1985	337,979.94	337,980	337,980			
1986	415,932.56	407,614	398,504	17,429	0.50	17,429
1987	497,081.38	467,256	456,813	40,268	1.50	26,845
1988	572,853.96	515,569	504,047	68,807	2.50	27,523
1989	991,447.52	852,645	833,590	157,858	3.50	45,102
1990	884,657.18	725,419	709,207	175,450	4.50	38,989
1991	953,376.25	743,633	727,014	226,362	5.50	41,157
1992	1,056,320.51	781,677	764,208	292,113	6.50	44,940
1993	976,748.29	683,724	668,444	308,304	7.50	41,107
1994	1,200,546.81	792,361	774,653	425,894	8.50	50,105
1995	1,318,470.50	817,452	799,183	519,288	9.50	54,662
1996	1,287,503.35	746,752	730,063	557,440	10.50	53,090
1997	1,635,664.17	883,259	863,519	772,145	11.50	67,143
1998	1,355,395.36	677,698	662,552	692,843	12.50	55,427
1999	929,710.78	427,667	418,109	511,602	13.50	37,896
2000	1,314,979.59	552,291	539,948	775,032	14.50	53,450
2001	720,797.41	273,903	267,782	453,015	15.50	29,227
2002	1,562,255.00	531,167	519,296	1,042,959	16.50	63,210
2003	909,308.84	272,793	266,696	642,613	17.50	36,721
2004	1,988,678.23	517,056	505,500	1,483,178	18.50	80,172
2005	1,273,873.09	280,252	273,989	999,884	19.50	51,276
2006	1,832,543.46	329,858	322,486	1,510,057	20.50	73,661
2007	1,622,027.76	227,084	222,009	1,400,019	21.50	65,117
2008	3,588,294.31	358,829	350,810	3,237,484	22.50	143,888
2009	2,356,291.61	141,377	138,217	2,218,075	23.50	94,386
2010	2,660,580.57	53,212	52,023	2,608,558	24.50	106,472
	34,254,316.60	13,409,526	13,117,640	21,136,677		1,398,995
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					15.1	4.08

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 487.70 - RENTAL - VRA'S

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
1992	436,128.00	403,418	436,128			
1993	148,276.80	129,742	148,277			
1995	143,592.40	111,284	139,046	4,546	4.50	1,010
1996	156,472.80	113,443	141,743	14,730	5.50	2,678
1997	70,330.12	47,473	59,316	11,014	6.50	1,694
1999	55,023.48	31,639	39,531	15,492	8.50	1,823
2010	6,325.54	158	198	6,128	19.50	314
	1,016,149.14	837,157	964,239	51,910		7,519
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					6.9	0.74

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 487.80 - RENTAL EQUIPMENT - NGV STATION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
1987	534,389.40	534,389	534,389			
1989	837,600.60	837,601	837,601			
1990	611,109.36	611,109	611,109			
1992	417,895.59	386,553	223,841	194,055	1.50	129,370
1993	365,772.43	320,051	185,331	180,441	2.50	72,176
1995	639,920.39	495,938	287,182	352,738	4.50	78,386
1998	748,457.45	467,786	270,880	477,577	7.50	63,677
2000	344,763.20	181,001	104,812	239,951	9.50	25,258
2005	273,930.97	75,331	43,622	230,309	14.50	15,883
2008	5,627.27	703	407	5,220	17.50	298
2010	76,187.52	1,905	1,103	75,085	19.50	3,851
	4,855,654.18	3,912,367	3,100,277	1,755,377		388,899
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					4.5	8.01

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 487.90 - RENTAL NGV CYLINDERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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-S2.5						
NET SALVAGE PERCENT.. 0						
1990	5,156.90	5,157	5,157			
1991	85,509.24	84,740	65,409	20,100	0.09	20,100
1992	19,322.74	18,801	14,512	4,811	0.27	4,811
1993	41,320.38	39,420	30,428	10,892	0.46	10,892
1994	64,678.03	60,474	46,679	17,999	0.65	17,999
1995	99,301.06	90,960	70,210	29,091	0.84	29,091
1996	86,249.61	77,366	59,718	26,532	1.03	25,759
1997	130,887.31	114,657	88,502	42,385	1.24	34,181
1998	64,776.45	55,190	42,600	22,176	1.48	14,984
1999	151,583.74	125,057	96,529	55,055	1.75	31,460
2000	38,524.79	30,550	23,581	14,944	2.07	7,219
2001	88,570.38	66,871	51,617	36,953	2.45	15,083
2002	24,134.84	17,112	13,208	10,927	2.91	3,755
2003	9,852.75	6,454	4,982	4,871	3.45	1,412
2004	8,681.68	5,140	3,967	4,715	4.08	1,156
2005	13,186.60	6,831	5,273	7,914	4.82	1,642
2006	24,348.79	10,592	8,176	16,173	5.65	2,862
2007	16,961.41	5,852	4,517	12,444	6.55	1,900
2008	268,476.39	66,851	51,601	216,875	7.51	28,878
2009	138,482.75	20,772	16,034	122,449	8.50	14,406
2010	72,284.55	3,614	2,789	69,495	9.50	7,315
	1,452,290.39	912,461	705,489	746,801		274,905

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT.. 2.7 18.93

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 488.00 - COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
2000	4,556.60	4,557	4,557			
2001	740.88	704	709	32	0.50	32
2002	1,799,195.23	1,529,316	1,540,078	259,117	1.50	172,745
2003	104,205.33	78,154	78,704	25,501	2.50	10,200
2004	208,538.11	135,550	136,504	72,034	3.50	20,581
2005	296,760.92	163,219	164,368	132,393	4.50	29,421
2006	237,973.66	107,088	107,842	130,132	5.50	23,660
2007	88,667.09	31,033	31,251	57,416	6.50	8,833
2008	173,069.24	43,267	43,571	129,498	7.50	17,266
2009	99,738.00	14,961	15,067	84,671	8.50	9,961
	3,013,445.06	2,107,849	2,122,651	890,794		292,699
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					3.0	9.71

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 490.00 - COMPUTER EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
2006	5,778,520.88	5,200,669	1,646,867	4,131,654	0.50	4,131,654
2007	3,514,824.77	2,460,377	779,114	2,735,711	1.50	1,823,807
2008	4,297,348.32	2,148,674	680,409	3,616,939	2.50	1,446,776
2009	10,181,271.08	3,054,381	967,213	9,214,058	3.50	2,632,588
2010	8,775,248.07	877,525	277,881	8,497,367	4.50	1,888,304
	32,547,213.12	13,741,626	4,351,484	28,195,729		11,923,129
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					2.4	36.63

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 491.01 - SOFTWARE - ACQUIRED

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 4-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	2,100.00	2,100	2,100			
2006	18,238,052.49	18,238,052	18,238,052			
2007	9,190,140.34	8,041,373	3,578,368	5,611,772	0.50	5,611,772
2008	5,483,698.20	3,427,311	1,525,135	3,958,563	1.50	2,639,042
2009	4,752,963.64	1,782,361	793,141	3,959,823	2.50	1,583,929
2010	12,004,065.34	1,500,508	667,719	11,336,347	3.50	3,238,956
	49,671,020.01	32,991,705	24,804,515	24,866,505		13,073,699
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					1.9	26.32

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 491.02 - SOFTWARE - DEVELOPED

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

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						
2006	3,507,348.42	3,156,614	2,936,631	570,717	0.50	570,717
2007	12,446,729.66	8,712,711	8,105,526	4,341,204	1.50	2,894,136
2008	14,303,980.51	7,151,990	6,653,570	7,650,411	2.50	3,060,164
2009	2,827,813.86	848,344	789,223	2,038,591	3.50	582,455
2010	7,466,438.35	746,644	694,611	6,771,827	4.50	1,504,850
	40,552,310.80	20,616,303	19,179,561	21,372,750		8,612,322
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					2.5	21.24

ENBRIDGE GAS DISTRIBUTION, INC.

ACCOUNT 491.03 - C.I.S. SOFTWARE - ACQUIRED

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2010

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. 10-SQUARE PROBABLE RETIREMENT YEAR.. 9-2019						
2009	127,098,143.30	15,887,268	15,741,236	111,356,908	8.75	12,726,504
	127,098,143.30	15,887,268	15,741,236	111,356,908		12,726,504
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT..					8.7	10.01