

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility	)	
Commission	)	
	)	
	)	
vs.	)	Docket No. R-2015-2468056
	)	
	)	
Columbia Gas of Pennsylvania, Inc.	)	
	)	
	)	

DIRECT TESTIMONY OF  
JOHN J. SPANOS  
ON BEHALF OF  
COLUMBIA GAS OF PENNSYLVANIA, INC.

MARCH 19, 2015

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Columbia Stmt. 5  
 R-2015-2468056  
 8-4-15  
 Harrisburg

1 Q. Please state your name and address.

2 A. John J. Spanos. My business address is 207 Senate Avenue, Camp Hill,  
3 Pennsylvania.

4 Q. With what firm are you associated and in what capacity?

5 A. I am associated with the firm of Gannett Fleming Valuation and Rate  
6 Consultants, LLC ("Gannett Fleming") as Senior Vice President.

7 Q. How long have you been associated with Gannett Fleming?

8 A. I have been associated with the firm since college graduation in June 1986.

9 Q. What is your educational background?

10 A. I have Bachelor of Science degrees in Industrial Management and Mathematics  
11 from Carnegie-Mellon University and a Master of Business Administration from  
12 York College of Pennsylvania.

13 Q. Are you a member of any professional societies?

14 A. Yes. I am a member and past President of the Society of Depreciation  
15 Professionals. I am also a member of the American Gas Association/Edison  
16 Electric Institute Industry Accounting Committee.

17 Q. Have you taken the certification examination for depreciation professionals?

18 A. Yes, I passed the certification examination of the Society of Depreciation  
19 Professionals in September 1997 and was recertified in August 2003, February  
20 2008 and January 2013.

21

1 Q. Will you outline your experience in the field of depreciation?

2 A. I have over 28 years of depreciation experience which includes expert testimony  
3 in almost 200 cases before approximately 40 regulatory commissions, including  
4 the Pennsylvania Public Utility Commission ("Commission"). Please refer to  
5 Appendix A for my qualifications.

6 Q. What is the purpose of your testimony?

7 A. My testimony is in support of the depreciation studies conducted under my  
8 direction and supervision for the gas plant of Columbia Gas of Pennsylvania,  
9 Inc. ("Columbia" or the "Company").

10 Q. Have you prepared exhibits presenting the results of your studies?

11 A. Yes. Exhibit No. 9 presents the results of the depreciation study as of  
12 November 30, 2014. Exhibit No. 109, Schedule No. 1, Attachment A presents  
13 the results of the depreciation study as of November 30, 2015. Exhibit No. 109,  
14 Schedule No. 1, Attachment B presents the results of the depreciation study as  
15 of December 31, 2016. In addition, I am responsible for the responses to the  
16 following filing requirements pertaining to depreciation under Section  
17 53.53(a)(1) of the Commission's regulations: 3, 4, 5, 6, 7 and 17. I also sponsor  
18 Exhibit No. 5 and Exhibit No. 105, which are summaries of the results to  
19 Exhibit No. 9 and Exhibit No. 109, respectively.

20 Q. Please describe Exhibit Nos. 9 and 109.

21 A. Exhibit No. 9, Schedule No. 1, titled "2014 Depreciation Study - Calculated  
22 Annual Depreciation Accruals Related to Gas Plant as of November 30, 2014,"  
23 includes the results of the depreciation study as related to the original cost at

1 November 30, 2014. The report also includes the detailed depreciation  
2 calculations. Exhibit No. 109, Schedule No. 1, Attachment A, titled "2015  
3 Depreciation Study - Calculated Annual Depreciation Accruals Related to Gas  
4 Plant as of November 30, 2015," includes the results of the depreciation study  
5 as related to the estimated original cost at November 30, 2015. The report also  
6 includes explanatory text, statistics related to the estimation of service life, and  
7 the detailed depreciation calculations. Exhibit No. 109, Schedule No. 1,  
8 Attachment B, titled "2016 Depreciation Study - Calculated Annual  
9 Depreciation Accruals Related to Gas Plant as of December 31, 2016," includes  
10 the results of the depreciation study as related to the estimated original cost at  
11 December 31, 2016.

12 Q. What were the purposes of your depreciation studies?

13 A. The purposes of the depreciation studies were to estimate the annual  
14 depreciation accruals related to gas plant in service for ratemaking purposes  
15 and, using Commission-approved procedures, to estimate the Company's book  
16 reserve at November 30, 2015, and December 31, 2016.

17 Q. Is the Company's claim for annual depreciation in the current proceeding based  
18 on the same methods of depreciation as were used in its most recent Annual  
19 Depreciation Report filed in June 2014 and service life study filed in August  
20 2012?

21 A. Yes, it is. For most plant accounts, the current claim for annual depreciation is  
22 based on the straight line remaining life method of depreciation, which has  
23 been used for over twenty years. For Accounts 391.1, 391.11, 391.12, 392, 393,  
24 394, 394.5, 395, 397.1, 397.24 and 398, the claim is based on the straight line

1 remaining life method of amortization. The accounts have a large number of  
2 units, but small asset values representing less than 2 percent of the depreciable  
3 plant. The assets represent items located in office buildings, service centers,  
4 garages and warehouses. Given the difficulty in maintaining accounting records  
5 for these numerous assets and high cost for periodic inventories, retirements  
6 are recorded when a vintage is fully amortized, rather than as the units are  
7 removed from service. All units are retired when the age of the vintage reaches  
8 the amortization period. The annual amortization is based on amortization  
9 accounting which distributes the unrecovered cost of fixed capital assets over  
10 the remaining amortization period selected for each account.

11 Q. What group procedure is being used in this proceeding for depreciable  
12 accounts?

13 A. The average service life procedure is used in the current proceeding for plant  
14 installed prior to 1976 and the equal life group procedure for 1976 and  
15 subsequent vintages. This calculation has been used in the same manner as the  
16 Company's most recent annual depreciation reports.

17 Q. Is the Company's claim for accrued depreciation in the current proceeding  
18 made on the same basis as has been used for over twenty years?

19 A. Yes. The current claim for accrued depreciation is the book reserve brought  
20 forward from the book reserve approved by the Commission in the last  
21 proceeding.

22 Q. How was the book reserve used in the calculation of annual depreciation?

23 A. The book reserve by account was allocated to vintages to determine original cost  
24 less accrued depreciation by vintage. The total annual accrual is the sum of the

1 results of dividing the original costs less accrued depreciation by the vintage  
2 composite remaining lives.

3 Q. How was the book reserve at November 30, 2015, estimated?

4 A. The book reserve at November 30, 2015, by account, was projected by adding  
5 estimated accruals, salvage and the amortization of net salvage, and subtracting  
6 estimated retirements and cost of removal from the book reserve at November  
7 30, 2014. Annual accruals were estimated using the annual accruals calculated  
8 as of November 30, 2014. For most accounts, salvage and cost of removal were  
9 estimated by (1) expressing actual salvage and cost of removal as a percent of  
10 retirements by account, for the most recent five-year period, and (2) applying  
11 those percents to the projected retirements by account. For the purpose of  
12 calculating the annual accruals, the projected book reserve by account was  
13 allocated to vintages based on calculated accrued depreciation at November 30,  
14 2015.

15 Q. Was the book reserve at December 31, 2016, estimated using the same  
16 methodology?

17 A. Yes.

18 Q. Has a service life study of the Company's gas utility property been performed?

19 A. Yes. The most recent service life study was performed as of December 2011.  
20 The service life study is the basis for the service lives I used to calculate annual  
21 accruals.

22 Q. Briefly outline the procedure used in performing the service life study.

1 A. The service life study consisted of assembling and compiling historical data  
2 from the records related to the gas utility plant of the Company; statistically  
3 analyzing such data to obtain historical trends of survivor characteristics;  
4 obtaining supplementary information from management and operating  
5 personnel concerning Company practices and plans as they relate to plant  
6 operations; and interpreting the above data to form judgments of service life  
7 characteristics.

8 Iowa type survivor curves were used to describe the estimated survivor  
9 characteristics of the mass property groups. Individual service lives were used  
10 for major individual units of plant, such as distribution buildings, housing  
11 offices and shops. The life span concept was recognized by coordinating the  
12 lives of associated plant installed in subsequent years with the probable  
13 retirement date defined by the life estimated for the major unit.

14 Q. What statistical data were employed in the historical analyses performed for the  
15 purpose of estimating service life characteristics?

16 A. The data consisted of the entries made to record retirements and other  
17 transactions related to the gas plant during the period 1939-2011. The year  
18 1939 is the first year continuing property records were maintained. These  
19 entries were classified by depreciable group, type of transaction, the year in  
20 which the transaction took place, and the year in which the plant was installed.  
21 Types of transactions included in the data were plant additions, retirements,  
22 transfers, and balances. In the presentation of service life statistics, only the  
23 significant exposure points that were utilized in determining survivor curves

1        were plotted. This process is utilized to show my judgment in service life  
2        determinations.

3        Q. What was the source of these data?

4        A. They were assembled from Company records related to its gas plant in service.

5        Q. Were the methods used in the service life study the same as those used in other  
6        depreciation studies for gas utility plant presented before this Commission?

7        A. Yes. The methods are the same ones that have been presented previously for  
8        Columbia Gas of Pennsylvania, Inc. and for other gas companies before the  
9        Pennsylvania Public Utility Commission and that have been accepted by the  
10       Commission in its past orders concerning gas utilities.

11       Q. What approach did you use to estimate the lives of significant structures such as  
12       office buildings and service centers?

13       A. I used the life span technique to estimate the lives of significant structures. In  
14       this technique, the survivor characteristics of the structures are described by the  
15       use of interim survivor curves and estimated probable retirement dates. The  
16       interim survivor curve describes the rate of retirement related to the  
17       replacement of elements of the structure such as plumbing, heating, doors,  
18       windows, roofs, etc. that occur during the life of the facility. The probable  
19       retirement date provides the rate of final retirement for each year of installation  
20       for the structure by truncating the interim survivor curve for each installation  
21       year at its attained age at the date of probable retirement. The use of interim  
22       survivor curves truncated at the date of probable retirement provides a  
23       consistent method for estimating the lives of the several years of installation



1 inasmuch as concurrent retirement of all years of installation will occur when  
2 the structure is retired.

3 Q. Has your firm used this approach in other proceedings before this Commission?

4 A. Yes, we have used the life span technique on many occasions before the  
5 Pennsylvania Public Utility Commission.

6 Q. What are the bases for the probable retirement years that you have estimated  
7 for each structure?

8 A. The bases for the estimates of probable retirement years are life spans for each  
9 structure that are based on judgment and incorporate consideration of the age,  
10 use, size, nature of construction, management outlook and typical life spans  
11 experienced and used by other gas utilities for similar structures. Most of the  
12 life spans result in probable retirement dates that are many years in the future.  
13 As a result, the retirement of these structures is not yet subject to specific  
14 management plans. Such plans would be premature. At the appropriate time,  
15 studies of the economics of rehabilitation and continued use or retirement of  
16 the structure will be analyzed and the results incorporated in the estimation of  
17 the structure's life span.

18 Q. Are the factors considered in your estimates of service life presented in Exhibit  
19 No. 109, Schedule No. 1, Attachment A?

20 A. Yes. A discussion of the factors considered in the estimation of service lives is  
21 presented by account on pages III-4 through III-8 of Exhibit No. 109, Schedule  
22 No. 1, Attachment A.

1 Q. Were there any material changes to life characteristics as a result of this rate  
2 proceeding?

3 A. No. There was no material change in the life estimate for plant accounts or  
4 subaccounts in this rate proceeding. All life estimates were based on the recent  
5 annual depreciation reports when the service life studies were conducted.

6 Q. Please outline the contents of Exhibit No. 109, Schedule No. 1, Attachment A.

7 A. Exhibit No. 109, Schedule No. 1, Attachment A is presented in eight parts. Part  
8 I, Introduction, sets forth the scope and basis of the study. Part II, Estimation  
9 of Survivor Curves, includes a description of the Iowa Curves and the  
10 formulation of the retirement rate method. Part III, Service Life  
11 Considerations, and Part IV, Calculation of Annual and Accrued Depreciation,  
12 include a description of the judgment utilized for life parameters and the  
13 explanation of depreciation procedures.

14 Part V, Results of Study, presents a description of the results and  
15 summaries of the depreciation calculations. Part VI, Service Life Statistics,  
16 presents the graphs and tables which relate to the service life study. Part VII,  
17 Detailed Depreciation Calculations, sets forth the detailed depreciation  
18 calculations by account. Part VIII, Experienced and Estimated Net Salvage,  
19 presents the cost of removal and gross salvage by account for the years 2010  
20 through 2014.

21 Table 1, pages V-4 through V-6, presents the estimated survivor curve,  
22 the original cost at November 30, 2015, and the book reserve and calculated  
23 annual depreciation for each account or subaccount of Gas Plant. Table 2,

1 pages V-7 and V-8, presents the bringforward to November 30, 2015, of the  
2 book depreciation reserve as of November 30, 2014. Table 3 on pages V-9 and  
3 V-10 sets forth the calculation of the annual accruals used in the bringforward.  
4 Table 4, page V-11, presents the experienced and estimated net salvage during  
5 the five-year period, 2010 through 2014.

6 The section beginning on page VI-1 presents the results of the  
7 retirement rate analyses prepared as the historical bases for the service life  
8 estimates. The section beginning on page VII-1 presents the depreciation  
9 calculations related to original cost. The tabulation on pages VII-3 through VII-  
10 6 presents the cumulative depreciated original cost by year installed. The  
11 tabulations on pages VII-8 through VII-73 present the calculation of annual  
12 depreciation by vintage by account for each depreciable group of utility plant.

13 Q. Please outline the contents of Exhibit No. 109, Schedule No. 1, Attachment B.

14 A. Exhibit No. 109, Schedule No. 1, Attachment B includes a description of the  
15 results, summaries of the depreciation calculations, and the detailed  
16 depreciation calculations as of December 31, 2016. The descriptions and  
17 explanations presented in Exhibit No. 109, Schedule No. 1, Attachment A are  
18 also applicable to the depreciation calculations presented in Exhibit No. 109,  
19 Schedule No. 1, Attachment B. The graphs and tables related to service life  
20 presented in Exhibit No. 109, Schedule No. 1, Attachment A also support the  
21 service life estimates used in Exhibit No. 109, Schedule No. 1, Attachment B  
22 inasmuch as the estimates are the same for both test years. The summary tables

1 and detailed depreciation calculations as of December 31, 2016, are organized  
2 and presented in the same manner as those as of November 30, 2015.

3 Q. Please outline the contents of Exhibit No. 9.

4 A. Exhibit No. 9 includes a description of the results, summaries of the  
5 depreciation calculations, and the detailed depreciation calculations as of  
6 November 30, 2014. The descriptions and explanations presented in Exhibit  
7 No. 109, Schedule No. 1, Attachment A are also applicable to the depreciation  
8 calculations presented in Exhibit No. 9. The graphs and tables related to service  
9 life presented in Exhibit No. 109, Schedule No. 1, Attachment A also support the  
10 service life estimates used in Exhibit No. 9, inasmuch as the estimates are the  
11 same for both test years. The summary tables and detailed depreciation  
12 calculations as of November 30, 2014, are organized and presented in the same  
13 manner as those as of November 30, 2015.

14 Q. Please use an example to illustrate the manner in which the study is presented  
15 in Exhibit Nos. 9, and 109.

16 A. I will use Account 376, Mains, as my example, inasmuch as it is the largest  
17 depreciable group and represents 64 percent of the original cost of depreciable  
18 gas plant as of November 30, 2015.

19 The retirement rate method was used to analyze the survivor  
20 characteristics of this group. The life tables for the 1939-2011 and 1977-2011  
21 experience bands are presented on pages VI-50 through VI-57 of Exhibit No.  
22 109, Schedule No. 1, Attachment A. The life tables, or original survivor curve,

1 are plotted along with the estimated smooth survivor curve, the 72-R1.5, on  
2 page VI-49.

3 The calculations of the annual depreciation related to the original cost  
4 at November 30, 2014, of gas plant are presented by type main on pages II-31  
5 through II-37 of Exhibit No. 9. The calculation is based on the 72-R1.5 survivor  
6 curve, the attained age, and the allocated book reserve. The calculations at  
7 November 30, 2015, are presented by type main on pages VII-30 through VII-  
8 35 of Exhibit No. 109, Schedule No. 1, Attachment A and are based in part on  
9 the bringforward of the book reserve. Also, the calculations at December 31,  
10 2016 are presented by type main on pages II-30 through II-35 of Exhibit No.  
11 109, Schedule No. 1, Attachment B and are based in part on the bringforward of  
12 the book reserve. The tabulations in Exhibit Nos. 9 and 109 set forth the  
13 installation year, the original cost, calculated accrued depreciation, allocated  
14 book reserve, future accruals, remaining life and annual accrual. The totals are  
15 brought forward to Table 1 on page I-3 in Exhibit No. 9, page V-4 in Exhibit No.  
16 109, Schedule No. 1, Attachment A and on page I-3 in Exhibit No. 109, Schedule  
17 No. 1, Attachment B.

18 Q. In what manner is net salvage incorporated in the depreciation calculations?

19 A. As stated on page IV-9 of Exhibit No. 109, Schedule No. 1, Attachment A, no  
20 adjustment for net salvage was made to the calculated annual depreciation  
21 amounts. The total calculated annual depreciation set forth on page I-5 of  
22 Exhibit No. 9, page V-6 of Exhibit No. 109, Schedule No. 1, Attachment A and  
23 on page I-5 of Exhibit No. 109, Schedule No. 1, Attachment B should include an

1 addition for the amortization of negative net salvage in accordance with the  
2 practice of this Commission. The amortization is based on experience during  
3 the period 2009 through 2013 for the calculation as of November 30, 2014, and  
4 on experience during the period 2010 through November 30, 2014, plus  
5 estimates for the last month of 2014 for the calculation as of November 30,  
6 2015.

7 The amortization for the December 31, 2016 calculation is based on  
8 experience during the period 2011 through November 30, 2014, plus estimates  
9 for the period December 2014 through December 2016. The amounts of the  
10 five-year amortizations are calculated in Table 2 on page I-6 of Exhibit No. 9, in  
11 Table 4 on page V-11 of Exhibit No. 109, Schedule No. 1, Attachment A and in  
12 Table 4 on page I-10 of Exhibit No. 109, Schedule No. 1, Attachment B.

13 Q. Have you provided a monthly bringforward to December 31, 2016, of the book  
14 depreciation reserve as of November 30, 2015?

15 A. Yes, Exhibit JJS-01 at the end of this testimony provides the monthly detail of  
16 the book depreciation reserve and the calculated depreciation. This exhibit  
17 agrees with the fully forecasted rate year reserve balance as shown on Exhibit  
18 No. 109, Schedule No. 1, Attachment B, Table 1 on pages I-3 through I-5.

19 Q. Does this complete your testimony at this time?

20 A. Yes, it does.

APPENDIX A

1 Q. Please state your name.

2 A. My name is John J. Spanos.

3 Q. What is your educational background?

4 A. I have Bachelor of Science degrees in Industrial Management and Mathematics  
5 from Carnegie-Mellon University and a Master of Business Administration from  
6 York College.

7 Q. Do you belong to any professional societies?

8 A. Yes. I am a member and current President of the Society of Depreciation  
9 Professionals and a member of the American Gas Association/Edison Electric  
10 Institute Industry Accounting Committee.

11 Q. Do you hold any special certification as a depreciation expert?

12 A. Yes. The Society of Depreciation Professionals has established national standards  
13 for depreciation professionals. The Society administers an examination to  
14 become certified in this field. I passed the certification exam in September 1997  
15 and was recertified in August 2003, February 2008 and January 2013.

16 Q. Please outline your experience in the field of depreciation.

17 A. In June 1986, I was employed by Gannett Fleming Valuation and Rate  
18 Consultants, Inc. as a Depreciation Analyst. During the period from June 1986 to  
19 December 1995, I took part in the preparation of numerous depreciation and  
20 original cost studies for utility companies in various industries. Depreciation  
21 studies of telephone companies were performed for United Telephone of  
22 Pennsylvania, United Telephone of New Jersey and Anchorage Telephone Utility.  
23 My work in the railroad industry included depreciation studies for Union Pacific



1 Railroad, Burlington Northern Railroad and Wisconsin Central Transportation  
2 Corporation.

3 Assignments in the electric industry included depreciation studies for  
4 Chugach Electric Association, The Cincinnati Gas and Electric Company, The  
5 Union Light, Heat & Power Company, Northwest Territories Power Corporation  
6 and the City of Calgary - Electric System. Pipeline industry assignments included  
7 studies for TransCanada Pipelines Limited, Trans Mountain Pipe Line Company  
8 Ltd., Interprovincial Pipe Line Inc., Nova Gas Transmission Limited and  
9 Lakehead Pipeline Company.

10 My work for the gas industry included depreciation studies for Columbia  
11 Gas of Pennsylvania, Columbia Gas of Maryland, The Peoples Natural Gas  
12 Company, T. W. Phillips Gas & Oil Company, The Cincinnati Gas and Electric  
13 Company, The Union Light, Heat & Power Company, Lawrenceburg Gas  
14 Company and Penn Fuel Gas, Inc. Assignments in the water industry included  
15 depreciation studies for Indiana-American Water Company, Consumers  
16 Pennsylvania Water Company and The York Water Company; and depreciation  
17 and original cost studies for Philadelphia Suburban Water Company and  
18 Pennsylvania-American Water Company.

19 My participation in each of the above studies included assembly and analysis  
20 of historical and simulated data, field reviews, the development of preliminary  
21 estimates of service life and net salvage, calculations of annual depreciation, and  
22 the preparation of reports for submission to state or provincial public utility  
23 commissions or federal regulatory agencies. I performed these studies under the

1 general direction of William M. Stout, P.E., the President of Gannett Fleming  
2 Valuation and Rate Consultants, Inc.

3 In January 1996, I was assigned to the position of Supervisor of  
4 Depreciation Studies. In July 1999, I was promoted to the position of Manager,  
5 Depreciation and Valuation Studies. In December 2000, I was promoted to the  
6 position as Vice-President of Gannett Fleming Valuation and Rate Consultants,  
7 Inc. and in April 2012, I was promoted to my present position as Senior Vice  
8 President of the Valuation and Rate Division of Gannett Fleming, Inc. (now doing  
9 business as Gannett Fleming Valuation and Rate Consultants, LLC). In my  
10 current position I am responsible for conducting all depreciation, valuation and  
11 original cost studies, including the preparation of final exhibits and responses to  
12 data requests for submission to the appropriate regulatory bodies.

13 Since January 1996, I have conducted depreciation studies similar to those  
14 previously listed including assignments for Pennsylvania-American Water  
15 Company; Aqua Pennsylvania; Kentucky-American Water Company; Virginia-  
16 American Water Company; Indiana-American Water Company; Hampton Water  
17 Works Company; Omaha Public Power District; Enbridge Pipe Line Company;  
18 Inc.; Columbia Gas of Virginia, Inc.; Virginia Natural Gas Company National Fuel  
19 Gas Distribution Corporation - New York and Pennsylvania Divisions; The City of  
20 Bethlehem - Bureau of Water; The City of Coatesville Authority; The City of  
21 Lancaster - Bureau of Water; Peoples Energy Corporation; The York Water  
22 Company; Public Service Company of Colorado; Enbridge Pipelines; Enbridge  
23 Gas Distribution, Inc.; Reliant Energy-HLP; Massachusetts-American Water  
24 Company; St. Louis County Water Company; Missouri-American Water

1 Company; Chugach Electric Association; Alliant Energy; Oklahoma Gas &  
2 Electric Company; Nevada Power Company; Dominion Virginia Power; NUI-  
3 Virginia Gas Companies; Pacific Gas & Electric Company; PSI Energy; NUI -  
4 Elizabethtown Gas Company; Cinergy Corporation – CG&E; Cinergy Corporation  
5 – ULH&P; Columbia Gas of Kentucky; South Carolina Electric & Gas Company;  
6 Idaho Power Company; El Paso Electric Company; Aqua North Carolina; Aqua  
7 Ohio; Aqua Texas, Inc.; Ameren Missouri; Central Hudson Gas & Electric;  
8 Centennial Pipeline Company; CenterPoint Energy-Arkansas; CenterPoint  
9 Energy – Oklahoma; CenterPoint Energy – Entex; CenterPoint Energy -  
10 Louisiana; NSTAR – Boston Edison Company; Westar Energy, Inc.; United Water  
11 Pennsylvania; PPL Electric Utilities; PPL Gas Utilities; Wisconsin Power & Light  
12 Company; TransAlaska Pipeline; Avista Corporation; Northwest Natural Gas;  
13 Allegheny Energy Supply, Inc.; Public Service Company of North Carolina; South  
14 Jersey Gas Company; Duquesne Light Company; MidAmerican Energy Company;  
15 Laclede Gas; Duke Energy Company; E.ON U.S. Services Inc.; Elkton Gas  
16 Services; Anchorage Water and Wastewater Utility; Kansas City Power and Light;  
17 Duke Energy North Carolina; Duke Energy South Carolina; Monongahela Power  
18 Company; Potomac Edison Company; Duke Energy Ohio Gas; Duke Energy  
19 Kentucky; Duke Energy Indiana; Northern Indiana Public Service Company;  
20 Tennessee-American Water Company; Columbia Gas of Maryland; Bonneville  
21 Power Administration; NSTAR Electric and Gas Company; EPCOR Distribution,  
22 Inc.; B. C. Gas Utility, Ltd; Entergy Arkansas; Entergy Texas; Entergy Mississippi;  
23 Entergy Louisiana; Entergy Gulf States Louisiana; the Borough of Hanover;  
24 Madison Gas and Electric; Central Maine Power; PEPCO; PacifiCorp; Minnesota

1 Energy Resource Group; Jersey Central Power & Light Company; Cheyenne  
2 Light, Fuel and Power Company; United Water Arkansas; Central Vermont  
3 Public Service Corporation; Green Mountain Power; Portland General Electric  
4 Company; Atlantic City Electric; Nicor Gas Company; Black Hills Power; Black  
5 Hills Colorado Gas; Black Hills Kansas Gas; Black Hills Service Company; Black  
6 Hills Utility Holdings; Public Service Company of Oklahoma; Peoples Gas Light  
7 and Coke Company; North Shore Gas Company; Connecticut Light and Power;  
8 and Greater Missouri Operations. My additional duties include determining final  
9 life and salvage estimates, conducting field reviews, presenting recommended  
10 depreciation rates to management for its consideration and supporting such rates  
11 before regulatory bodies.

12 Q. What is the extent of your formal instruction with respect to utility plant  
13 depreciation?

14 A. I have completed the "Techniques of Life Analysis", "Techniques of Salvage and  
15 Depreciation Analysis", "Forecasting Life and Salvage", "Modeling and Life  
16 Analysis Using Simulation" and "Managing a Depreciation Study" programs  
17 conducted by Depreciation Programs, Inc. Also, I have completed the  
18 "Introduction to Public Utility Accounting" program conducted by the American  
19 Gas Association.

20 Q. Have you previously testified on public utility ratemaking matters?

21 A. Yes. I have submitted testimony to the Pennsylvania Public Utility Commission;  
22 the Commonwealth of Kentucky Public Service Commission; the Public Utilities  
23 Commission of Ohio; the Nevada Public Utility Commission; the Public Utilities  
24 Board of New Jersey; the Missouri Public Service Commission; the Massachusetts

1 Department of Telecommunications and Energy; the Alberta Energy & Utility  
2 Board; the Idaho Public Utility Commission; the Louisiana Public Service  
3 Commission; the State Corporation Commission of Kansas; the Oklahoma  
4 Corporate Commission; the Public Service Commission of South Carolina;  
5 Railroad Commission of Texas – Gas Services Division; the New York Public  
6 Service Commission; Illinois Commerce Commission; the Indiana Utility  
7 Regulatory Commission; the California Public Utilities Commission; the Federal  
8 Energy Regulatory Commission (“FERC”); the Arkansas Public Service  
9 Commission; the Public Utility Commission of Texas; Maryland Public Service  
10 Commission; Washington Utilities and Transportation Commission; The  
11 Tennessee Regulatory Commission; the Regulatory Commission of Alaska;  
12 Minnesota Public Utility Commission; Utah Public Service Commission; District  
13 of Columbia Public Service Commission; the Mississippi Public Service  
14 Commission; Delaware Public Service Commission; Virginia State Corporation  
15 Commission; Colorado Public Utility Commission; Oregon Public Utility  
16 Commission; South Dakota Public Utilities Commission; Wisconsin Public  
17 Service Commission; Wyoming Public Service Commission; Maine Public Utility  
18 Commission; Iowa Utility Board; Connecticut Public Utilities Regulatory  
19 Authority; and the North Carolina Utilities Commission.

RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FFY = 13

PROJECTED 15      PROJECTED 2016

Account	2015		'Accrual Rates	COR % of Rets	Salvage % of Rets	'5-yr		COR % of Rets	Salvage % of Rets	2015							
	NOV 30	Begin. Balance				Amort of NS 2010-2014	COR % of Rets			Amort of NS 2011-2015	DECEMBER						
											Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal	Salvage	Acquisitions
350.20	1,931	0.00								0	0	0	0	0	0	0	1,931
351.20	861,264	3.87			122		122			10,104	10	10,115	0	0	0	0	871,379
352.01	799,118	0.00								0	0	0	0	0	0	0	799,118
352.02	168,680	0.00								0	0	0	0	0	0	0	168,680
352.10	206,932	0.00								0	0	0	0	0	0	0	206,932
353.00	405,288	0.00								0	0	0	0	0	0	0	405,288
354.00	569,716	2.71								2,489	0	2,489	1,100	0	0	0	571,105
355.00	123,010	0.00								0	0	0	0	0	0	0	123,010
374.40	651,055	1.71	0.12		1,108	0.12	1,321			3,294	92	3,386	500	60	0	0	653,881
374.50	1,555,652	1.32			189		0			3,556	16	3,572	0	0	0	0	1,559,224
375.34	824,030	2.23	1.01		26,343	0.68	20,508			6,761	2,195	8,956	1,900	1,919	0	0	829,167
375.60	72,639	1.04			290		218			76	24	100	0	0	0	0	72,739
375.70	1,825,771	4.98	0.18	0.00	(45,078)	0.18	15,635			33,166	(3,757)	29,410	23,400	4,212	0	0	1,827,569
375.80	6,177	2.03					28			28	0	28	0	0	0	0	6,205
376.00	180,973,343	2.04	0.16		1,009,978	0.16	1,301,889			1,879,723	84,165	1,963,888	816,600	130,656	0	0	181,989,975
378.00	8,503,313	3.33	0.34		103,247	0.37	164,179			108,447	8,604	117,051	13,600	4,624	0	0	8,602,140
379.10	89,069	3.29			395		18			387	33	420	0	0	0	0	89,489
380.00	103,656,108	2.88	0.55		2,792,833	0.59	3,000,315			1,009,869	232,736	1,242,605	91,500	50,325	0	0	104,756,888
381.00	15,173,270	2.46		0.02	(12,838)		(7,095)			72,149	(1,070)	71,079	5,000	0	100	0	15,239,449
381.10	6,817,382	7.50								146,584	0	146,584	(14,300)	0	0	0	6,978,266
382.00	11,320,688	1.95			(12)					57,460	(1)	57,459	6,600	0	0	0	11,371,547
383.00	3,318,441	2.57	0.01		166	0.01	178			23,583	14	23,597	3,400	34	0	0	3,338,604
384.00	2,904,820	1.77			1					5,701	0	5,701	0	0	0	0	2,910,521
385.00	3,015,332	3.89	0.22		41,677	0.21	34,144			22,235	3,473	25,708	700	154	0	0	3,040,186
387.00	68,826	3.74			5,865		5,397			417	489	906	0	0	0	0	69,732
387.40	689,628	4.77			1,683		318			12,377	140	12,517	0	0	0	0	702,143
390.10	48,089	0.24								10	0	10	0	0	0	0	48,099
391.10	1,742,734	1.94								3,256	0	3,256	101,036	0	0	0	1,644,953
391.11	11,382	5.05								103	0	103	0	0	0	0	11,485
391.12	1,900,062	14.99								31,015	0	31,015	0	0	0	0	1,931,077
392.00	53,871	9.56			(13,972)		(12,400)			777	(1,164)	(387)	0	0	0	0	53,484
393.00	16,436	0.55								8	0	8	0	0	0	0	16,444
394.00	5,473,958	3.68			(1,077)					38,701	(90)	38,612	209,079	0	0	0	5,303,490
394.12	1,953,286	0.00								0	0	0	0	0	0	0	1,953,286
394.50	109,781	10.36								19,859	0	19,859	0	0	0	0	129,640
395.00	31,717	6.08								257	0	257	0	0	0	0	31,974
396.00	1,367,201	1.39			(39,688)		(29,680)			1,663	(3,307)	(1,645)	0	0	0	0	1,365,556
397.10	344,072	9.42			493					5,334	41	5,375	173,476	0	0	0	175,971
397.24	1,729,110	2.38								3,263	0	3,263	1,896,858	0	0	0	35,515
397.50	676,536	4.87								4,415	0	4,415	0	0	0	0	680,951
398.00	169,968	6.94								5,004	0	5,004	18,640	0	0	0	156,332
303.00	7,112,928									285,256	0	285,256	185,366	0	0	0	7,212,818
305.00	(4,583)									0	0	0	0	0	0	0	(4,583)
362.00	(1,609)									0	0	0	0	0	0	0	(1,609)
362.10	(956,223)				657,403		128,747			0	54,784	54,784	0	0	0	0	(901,439)
374.20	222,752				11,527		11,527			0	961	961	0	0	0	0	223,713
375.71	1,098,950									2,247	0	2,247	0	0	0	0	1,101,197
389.20	39									0	0	0	0	0	0	0	39
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>		<b>4,635,342</b>			<b>3,799,572</b>	<b>378,368</b>	<b>4,177,960</b>	<b>3,334,455</b>	<b>191,984</b>	<b>100</b>	<b>0</b>	<b>368,353,559</b>

RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FTY = 13

PROJECTED 15      PROJECTED 2016

Account	2015		COR	Salvage % of Rets	'5-yr		COR	Salvage % of Rets	'5-yr		2016					
	NOV 30 Begin. Balance	'Accrual Rates 2015			Amort of NS 2010-2014	COR			Amort of NS 2011-2015	JANUARY						
										Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal	Salvage	Acquisitions
350.20	1,931	0.00							0	0	0	0	0	0	0	1,931
351.20	861,264	3.87			122			122	10,104	10	10,115	0	0	0	0	881,493
352.01	799,118	0.00							0	0	0	0	0	0	0	799,118
352.02	168,680	0.00							0	0	0	0	0	0	0	168,680
352.10	206,932	0.00							0	0	0	0	0	0	0	206,932
353.00	405,288	0.00							0	0	0	0	0	0	0	405,288
354.00	569,716	2.71							2,512	0	2,512	1,400	0	0	0	572,217
355.00	123,010	0.00							0	0	0	0	0	0	0	123,010
374.40	651,055	1.71	0.12		1,108	0.12		1,321	3,300	110	3,410	500	60	0	0	656,731
374.50	1,555,652	1.32			189			0	3,556	0	3,556	0	0	0	0	1,562,781
375.34	824,030	2.23	1.01		26,343	0.68		20,509	6,784	1,709	8,493	1,400	952	0	0	835,308
375.60	72,639	1.04			290			218	76	18	94	0	0	0	0	72,833
375.70	1,825,771	4.08	0.18	0.00	(45,078)	0.18	0.00	15,635	33,544	1,303	34,847	0	0	0	0	1,862,415
375.80	6,177	2.03							28	0	28	0	0	0	0	6,233
376.00	180,973,343	2.04	0.16		1,009,978	0.16		1,301,889	1,889,727	108,491	1,998,218	723,100	115,696	0	0	183,149,397
378.00	8,503,313	3.33	0.34		103,247	0.37		164,179	108,658	13,682	122,340	6,300	2,331	0	0	8,715,848
379.10	89,069	3.29			395			18	387	2	388	0	0	0	0	89,877
380.00	103,656,108	2.88	0.55		2,792,833	0.59		3,000,315	1,012,670	250,026	1,262,697	215,900	127,381	0	0	105,676,304
381.00	15,173,270	2.46		0.02	(12,838)			(7,095)	72,235	(591)	71,644	6,000	0	120	0	15,305,213
381.10	6,817,382	7.50							146,238	0	146,238	0	0	0	0	7,124,504
382.00	11,320,688	1.95			(12)				57,542	0	57,542	6,600	0	0	0	11,422,490
383.00	3,318,441	2.57	0.01		166	0.01		178	23,638	15	23,553	3,300	33	0	0	3,358,924
384.00	2,904,820	1.77			1				5,701	0	5,701	0	0	0	0	2,916,221
385.00	3,015,332	3.89	0.22		41,677	0.21		34,144	22,254	2,845	25,100	800	168	0	0	3,064,318
387.00	68,826	3.74			5,865			5,397	417	450	867	0	0	0	0	70,599
387.40	689,626	4.77			1,683			318	12,377	27	12,404	0	0	0	0	714,547
390.10	48,089	0.24							10	0	10	0	0	0	0	48,109
391.10	1,742,734	1.94							3,186	0	3,186	0	0	0	0	1,648,139
391.11	11,382	5.05							103	0	103	0	0	0	0	11,588
391.12	1,900,062	14.59							31,015	0	31,015	0	0	0	0	1,962,091
392.00	53,871	9.56			(13,972)			(12,400)	777	(1,033)	(256)	0	0	0	0	53,227
393.00	16,436	0.55							8	0	8	0	0	0	0	16,451
394.00	5,473,958	3.68			(1,077)			(29,680)	38,500	0	38,500	0	0	0	0	5,341,990
394.12	1,953,286	0.00							0	0	0	0	0	0	0	1,953,286
394.50	109,781	10.36							20,783	0	20,783	0	0	0	0	150,403
395.00	31,717	6.08							257	0	257	0	0	0	0	32,230
396.00	1,367,201	1.39			(39,688)			(29,680)	1,863	(2,473)	(611)	0	0	0	0	1,364,746
397.10	344,072	9.42			493				4,867	0	4,867	0	0	0	0	180,838
397.24	1,729,110	2.38							1,677	0	1,677	0	0	0	0	37,192
397.50	676,536	4.87							4,488	0	4,488	0	0	0	0	685,439
398.00	169,968	6.94							6,344	0	6,344	0	0	0	0	162,677
303.00	7,112,928								285,256	0	285,256	0	0	0	0	7,498,073
305.00	(4,583)								0	0	0	0	0	0	0	(4,583)
362.00	(1,609)								0	0	0	0	0	0	0	(1,609)
362.10	(956,223)				657,403			128,747	0	10,729	10,729	0	0	0	0	(890,711)
374.20	222,752				11,527			11,527	0	961	961	0	0	0	0	224,673
375.71	1,098,950								2,247	0	2,247	0	0	0	0	1,103,444
389.20	39								0	0	0	0	0	0	0	39
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>			<b>4,635,342</b>	<b>3,812,909</b>	<b>386,279</b>	<b>4,199,187</b>	<b>965,300</b>	<b>246,621</b>	<b>120</b>	<b>0</b>	<b>371,340,945</b>

RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FFY = 13

PROJECTED 15      PROJECTED 2016

Account	2015		COR	Salvage	'5-yr Amort of NS	COR	Salvage	'5-yr Amort of NS	2016							Ending Balance	
	NOV 30	'Accrual Rates							FEBRUARY	Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal	Salvage		Acquisitions
350.20	1,931	0.00							0	0	0	0	0	0	0	1,931	
351.20	861,264	3.87			122			122	10,104	10	10,115	0	0	0	0	891,608	
352.01	799,118	0.00							0	0	0	0	0	0	0	799,118	
352.02	168,680	0.00							0	0	0	0	0	0	0	168,680	
352.10	206,932	0.00							0	0	0	0	0	0	0	206,932	
353.00	405,288	0.00							0	0	0	0	0	0	0	405,288	
354.00	569,716	2.71							2,536	0	2,536	1,400	0	0	0	573,353	
355.00	123,010	0.00							0	0	0	0	0	0	0	123,010	
374.40	651,055	1.71	0.12		1,108	0.12		1,321	3,307	110	3,417	800	98	0	0	659,252	
374.50	1,555,652	1.32			189			0	3,556	0	3,556	0	0	0	0	1,566,337	
375.34	824,030	2.23	1.01		26,343	0.68		20,509	6,805	1,709	8,514	1,700	1,156	0	0	840,966	
375.60	72,639	1.04			290			218	76	18	94	0	0	0	0	72,927	
375.70	1,825,771	4.98	0.18	0.00	(45,078)	0.18	0.00	15,635	33,562	1,303	34,865	1,100	198	0	0	1,895,983	
375.80	6,177	2.03							28	0	28	0	0	0	0	6,261	
376.00	180,973,343	2.04	0.16		1,009,978	0.16		1,301,889	1,898,976	108,491	2,007,467	722,200	115,552	0	0	184,319,112	
378.00	8,503,313	3.33	0.34		103,247	0.37		164,179	108,802	13,682	122,484	7,500	2,775	0	0	8,828,057	
379.10	89,069	3.29			395			18	387	2	388	0	0	0	0	90,266	
380.00	103,656,109	2.88	0.55		2,792,833	0.59		3,000,315	1,016,744	250,028	1,266,770	235,000	138,650	0	0	106,569,424	
381.00	15,173,270	2.46		0.02	(12,838)		0.02	(7,095)	72,337	(591)	71,746	7,200	0	144	0	15,369,902	
381.10	6,817,382	7.50							146,240	0	146,240	0	0	0	0	7,270,744	
382.00	11,320,688	1.95			(12)				57,637	0	57,637	8,800	0	0	0	11,471,327	
383.00	3,318,441	2.57	0.01		166	0.01		178	23,705	15	23,720	4,900	49	0	0	3,377,695	
384.00	2,904,820	1.77			1				5,701	0	5,701	0	0	0	0	2,921,922	
385.00	3,015,332	3.89	0.22		41,677	0.21		34,144	22,276	2,845	25,121	1,000	210	0	0	3,088,229	
387.00	68,826	3.74			5,865			5,397	417	450	867	0	0	0	0	71,466	
387.40	889,826	4.77			1,683			318	12,377	27	12,404	0	0	0	0	726,950	
390.10	48,089	0.24							10	0	10	0	0	0	0	48,119	
391.10	1,742,734	1.94							3,187	0	3,187	0	0	0	0	1,651,326	
391.11	11,382	5.05							103	0	103	0	0	0	0	11,690	
391.12	1,900,062	14.59							31,015	0	31,015	0	0	0	0	1,993,106	
392.00	53,871	9.56			(13,972)		0.44	(12,400)	777	(1,033)	(256)	0	0	0	0	52,971	
393.00	16,436	0.55							8	0	8	0	0	0	0	16,459	
394.00	5,473,958	3.68			(1,077)				38,503	0	38,503	0	0	0	0	5,380,493	
394.12	1,953,286	0.00							0	0	0	0	0	0	0	1,953,286	
394.50	109,781	10.36							20,793	0	20,793	0	0	0	0	171,195	
395.00	31,717	6.08							257	0	257	0	0	0	0	32,487	
396.00	1,367,201	1.39			(39,688)			(29,680)	1,663	(2,473)	(811)	0	0	0	0	1,363,936	
397.10	344,072	9.42			493				4,877	0	4,877	0	0	0	0	185,715	
397.24	1,729,110	2.38							1,681	0	1,681	0	0	0	0	38,873	
397.50	676,536	4.87							4,491	0	4,491	0	0	0	0	689,930	
398.00	169,968	6.94							6,344	0	6,344	0	0	0	0	169,021	
303.00	7,112,928								285,256	0	285,256	0	0	0	0	7,783,329	
305.00	(4,583)								0	0	0	0	0	0	0	(4,583)	
362.00	(1,609)								0	0	0	0	0	0	0	(1,609)	
362.10	(956,223)				657,403			128,747	0	10,729	10,729	0	0	0	0	(579,982)	
374.20	222,752				11,527			11,527	0	961	961	0	0	0	0	225,634	
375.71	1,098,950								2,247	0	2,247	0	0	0	0	1,105,690	
389.20	39								0	0	0	0	0	0	0	39	
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>			<b>4,635,342</b>	<b>3,826,783</b>	<b>386,279</b>	<b>4,213,061</b>	<b>991,600</b>	<b>258,686</b>	<b>144</b>	<b>0</b>	<b>374,303,864</b>	



RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FTY = 13

PROJECTED 15

PROJECTED 2016

Account	2015		'Accrual Rates	COR	Salvage % of Rets	'5-yr		COR	Salvage % of Rets	'5-yr		2016					
	NOV 30					Amort of NS 2010-2014	% of Rets			% of Rets	Amort of NS 2011-2015	MARCH					
	Begin. Balance	2015										Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal	Salvage
350.20	1,931	0.00								0	0	0	0	0	0	0	1,931
351.20	861,264	3.87			122		122			10,104	10	10,115	0	0	0	0	901,722
352.01	799,118	0.00								0	0	0	0	0	0	0	799,118
352.02	168,680	0.00								0	0	0	0	0	0	0	168,680
352.10	206,932	0.00								0	0	0	0	0	0	0	206,932
353.00	405,288	0.00								0	0	0	0	0	0	0	405,288
354.00	569,716	2.71								2,567	0	2,567	2,300	0	0	0	573,620
355.00	123,010	0.00								0	0	0	0	0	0	0	123,010
374.40	651,055	1.71	0.12		1,108	0.12	1,321			3,317	110	3,427	1,100	132	0	0	661,447
374.50	1,555,652	1.32			189		0			3,556	0	3,556	0	0	0	0	1,569,893
375.34	824,030	2.23	1.01		26,343	0.66	20,509			6,833	1,709	8,543	2,500	1,700	0	0	845,308
375.60	72,639	1.04			260		218			76	18	94	0	0	0	0	73,022
375.70	1,825,771	4.98	0.18	0.00	(45,078)	0.19	15,635		0.00	33,598	1,303	34,901	1,100	198	0	0	1,929,566
375.80	6,177	2.03					28			0	0	28	0	0	0	0	6,289
376.00	180,973,343	2.04	0.16		1,009,978	0.16	1,301,889			1,911,750	108,491	2,020,241	1,274,000	203,840	0	0	184,861,513
378.00	8,503,313	3.33	0.34		103,247	0.37	164,179			108,997	13,682	122,678	11,200	4,144	0	0	8,935,391
379.10	89,069	3.29			395		18			387	2	388	0	0	0	0	90,654
380.00	103,656,108	2.88	0.55		2,792,833	0.59	3,000,315			1,822,160	250,026	1,272,186	364,500	215,055	0	0	107,262,055
381.00	15,173,270	2.46		0.02	(12,838)		(7,095)		0.02	72,475	(591)	71,884	10,700	0	214	0	15,431,300
381.10	6,817,382	7.50					146,241			0	0	146,241	0	0	0	0	7,416,985
382.00	11,320,688	1.95			(12)		57,768			0	0	57,768	12,600	0	0	0	11,516,495
383.00	3,318,441	2.57	0.01		166	0.01	178			23,800	15	23,814	6,800	68	0	0	3,394,641
384.00	2,904,820	1.77			1		5,701			0	0	5,701	0	0	0	0	2,927,622
385.00	3,015,332	3.89	0.22		41,677	0.21	34,144			22,305	2,845	25,151	1,500	315	0	0	3,111,565
387.00	68,826	3.74			5,865		5,397			417	450	867	0	0	0	0	72,333
387.40	689,626	4.77			1,683		318			12,377	27	12,404	0	0	0	0	739,354
390.10	48,089	0.24					10			0	0	10	0	0	0	0	48,129
391.10	1,742,734	1.94					3,188			0	0	3,188	0	0	0	0	1,654,514
391.11	11,382	5.05					103			0	0	103	0	0	0	0	11,793
391.12	1,900,062	14.59					31,015			0	0	31,015	0	0	0	0	2,024,120
392.00	53,871	9.56			(13,972)		777		0.44	(12,400)	(1,033)	(256)	0	0	0	0	52,715
393.00	16,436	0.55					8			0	0	8	0	0	0	0	16,467
394.00	5,473,958	3.68			(1,077)		38,511			0	0	38,511	0	0	0	0	5,419,004
394.12	1,953,286	0.00					0			0	0	0	0	0	0	0	1,953,286
394.50	109,781	10.36					20,849			0	0	20,849	0	0	0	0	192,045
395.00	31,717	6.08					257			0	0	257	0	0	0	0	32,744
396.00	1,367,201	1.39			(39,688)		1,653		(29,680)	(2,473)	(811)	0	0	0	0	0	1,363,125
397.10	344,072	9.42			493		4,894			0	0	4,894	0	0	0	0	190,609
397.24	1,729,110	2.36					1,689			0	0	1,689	0	0	0	0	40,563
397.50	676,536	4.87					4,497			0	0	4,497	0	0	0	0	694,427
398.00	169,968	6.94					6,344			0	0	6,344	0	0	0	0	175,366
303.00	7,112,928						285,256			0	0	285,256	0	0	0	0	8,068,584
305.00	(4,583)						0			0	0	0	0	0	0	0	(4,583)
362.00	(1,609)						0			0	0	0	0	0	0	0	(1,509)
362.10	(956,223)				657,403		128,747			0	10,729	10,729	0	0	0	0	(869,253)
374.20	222,752				11,527		11,527			0	961	961	0	0	0	0	226,594
375.71	1,098,950						2,247			0	0	2,247	0	0	0	0	1,107,937
389.20	39						0			0	0	0	0	0	0	0	39
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>		<b>4,635,342</b>			<b>3,845,764</b>	<b>386,279</b>	<b>4,232,043</b>	<b>1,688,300</b>	<b>425,452</b>	<b>214</b>	<b>0</b>	<b>376,422,369</b>

RESERVE BRINGFORWARD

Number of months for accrual calculation =  Number of months in FFY =

PROJECTED 15 PROJECTED 2016

Account	2015		COR	Salvage	'5-yr Amort of NS 2010-2014	COR	Salvage	'5-yr Amort of NS 2011-2015	2016							
	NOV 30 Begln. Balance	'Accrual Rates 2015							APRIL							
									% of Rets	% of Rets	Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal	Salvage
350.20	1,931	0.00							0	0	0	0	0	0	0	1,931
351.20	861,264	3.87			122			122	10,104	10	10,115	0	0	0	0	911,837
352.01	799,118	0.00							0	0	0	0	0	0	0	799,118
352.02	168,680	0.00							0	0	0	0	0	0	0	168,680
352.10	206,932	0.00							0	0	0	0	0	0	0	206,932
353.00	405,288	0.00							0	0	0	0	0	0	0	405,288
354.00	569,716	2.71							2,611	0	2,611	2,900	0	0	0	573,330
355.00	123,010	0.00							0	0	0	0	0	0	0	123,010
374.40	651,055	1.71	0.12		1,108	0.12		1,321	3,326	110	3,438	1,000	120	0	0	663,765
374.50	1,555,652	1.32			189			0	3,556	0	3,556	0	0	0	0	1,573,450
375.34	824,030	2.23	1.01		26,343	0.68		20,509	6,869	1,709	8,579	2,700	1,836	0	0	849,351
375.60	72,839	1.04			290			218	76	18	94	0	0	0	0	73,116
375.70	1,825,771	4.98	0.18	0.00	(45,078)	0.18	0.00	15,635	33,650	1,303	34,953	2,200	396	0	0	1,961,942
375.80	6,177	2.03							28	0	28	0	0	0	0	6,317
376.00	180,973,343	2.04	0.16		1,009,978	0.16		1,301,889	1,930,205	108,491	2,038,696	1,609,900	257,584	0	0	185,032,724
378.00	8,503,313	3.33	0.34		103,247	0.37		164,179	109,244	13,682	122,926	12,500	4,825	0	0	9,041,192
379.10	89,069	3.29			395			18	387	2	388	0	0	0	0	91,042
380.00	103,656,108	2.88	0.55		2,792,833	0.59		3,000,315	1,029,343	250,028	1,279,369	430,600	254,054	0	0	107,856,770
381.00	15,173,270	2.46		0.02	(12,838)			(7,095)	72,650	(591)	72,059	12,000	0	240	0	15,491,599
381.10	6,817,382	7.50							146,243	0	146,243	100	0	0	0	7,563,128
382.00	11,320,688	1.95			(12)				57,925	0	57,925	13,100	0	0	0	11,561,320
383.00	3,318,441	2.57	0.01		166	0.01		178	23,907	15	23,922	6,500	65	0	0	3,411,998
384.00	2,904,820	1.77			1				5,701	0	5,701	0	0	0	0	2,933,323
385.00	3,016,332	3.89	0.22		41,677	0.21		34,144	22,343	2,845	25,189	1,600	336	0	0	3,134,818
387.00	68,826	3.74			5,865			5,397	417	450	867	0	0	0	0	73,200
387.40	689,626	4.77			1,683			318	12,377	27	12,404	0	0	0	0	751,758
390.10	48,089	0.24							10	0	10	0	0	0	0	48,139
391.10	1,742,734	1.94							3,191	0	3,191	0	0	0	0	1,657,705
391.11	11,382	5.05							103	0	103	0	0	0	0	11,896
391.12	1,900,062	14.59							31,015	0	31,015	0	0	0	0	2,055,135
392.00	53,871	9.56			(13,972)			(12,400)	777	(1,033)	(256)	0	0	0	0	52,458
393.00	16,436	0.55							8	0	8	0	0	0	0	16,474
394.00	5,473,958	3.68			(1,077)				38,522	0	38,522	0	0	0	0	5,457,526
394.12	1,953,286	0.00							0	0	0	0	0	0	0	1,953,286
394.50	109,781	10.36							20,932	0	20,932	0	0	0	0	212,977
395.00	31,717	6.08							257	0	257	0	0	0	0	33,000
396.00	1,367,201	1.39			(39,688)			(29,680)	1,663	(2,473)	(811)	0	0	0	0	1,362,314
397.10	344,072	9.42			493				4,920	0	4,920	0	0	0	0	195,329
397.24	1,729,110	2.38							1,701	0	1,701	0	0	0	0	42,264
397.50	676,536	4.67							4,506	0	4,506	0	0	0	0	699,933
398.00	169,968	6.94							6,344	0	6,344	0	0	0	0	181,710
303.00	7,112,928								285,256	0	285,256	0	0	0	0	8,353,840
305.00	(4,583)								0	0	0	0	0	0	0	(4,583)
362.00	(1,609)								0	0	0	0	0	0	0	(1,609)
362.10	(956,223)				657,403			128,747	0	10,729	10,729	0	0	0	0	(856,524)
374.20	222,752				11,527			11,527	0	961	961	0	0	0	0	227,555
375.71	1,098,950								2,247	0	2,247	0	0	0	0	1,110,184
389.20	39								0	0	0	0	0	0	0	39
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>			<b>4,635,342</b>	<b>3,872,414</b>	<b>386,279</b>	<b>4,258,693</b>	<b>2,095,100</b>	<b>519,016</b>	<b>240</b>	<b>0</b>	<b>378,067,186</b>

RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FTY = 13

Account	PROJECTED 15				PROJECTED 2016				2016							
	2015	'Accrual	C.O.R	Salvage	'5-yr	C.O.R	Salvage	'5-yr	MAY							
	NOV 30	Rates							Amort of NS	Amort of NS	Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal	Salvage
Begin. Balance	2015	% of Rets	% of Rets	2010-2014	% of Rets	% of Rets	2011-2015									
350.20	1,931	0.00							0	0	0	0	0	0	0	1,931
351.20	861,264	3.87			122		122	10,104	10	10,115	0	0	0	0	0	921,952
352.01	799,118	0.00						0	0	0	0	0	0	0	0	799,118
352.02	168,680	0.00						0	0	0	0	0	0	0	0	168,680
352.10	206,932	0.00						0	0	0	0	0	0	0	0	206,932
353.00	405,288	0.00						0	0	0	0	0	0	0	0	405,288
354.00	569,716	2.71						2,665	0	2,665	3,500	0	0	0	0	572,496
355.00	123,010	0.00						0	0	0	0	0	0	0	0	123,010
374.40	651,055	1.71	0.12		1,108	0.12	1,321	3,339	110	3,449	1,000	120	0	0	0	666,094
374.50	1,555,652	1.32			189		0	3,556	0	3,556	0	0	0	0	0	1,577,006
375.34	824,030	2.23	1.01		26,343	0.68	20,509	6,910	1,709	8,619	3,100	2,108	0	0	0	852,762
375.60	72,639	1.04			290		218	76	18	94	0	0	0	0	0	73,210
375.70	1,825,771	4.98	0.18	0.00	(45,079)	0.18	15,635	33,731	1,303	35,034	3,000	540	0	0	0	1,993,436
375.80	6,177	2.03						28	0	28	0	0	0	0	0	6,345
376.00	180,973,343	2.04	0.16		1,009,978	0.16	1,301,899	1,953,487	108,491	2,061,977	2,028,300	324,528	0	0	0	184,741,874
378.00	8,503,313	3.33	0.34		103,247	0.37	184,170	109,529	13,682	123,210	14,700	5,439	0	0	0	9,144,263
379.10	89,069	3.29			395		18	387	2	388	0	0	0	0	0	91,431
380.00	103,656,108	2.88	0.55		2,792,833	0.59	3,000,315	1,037,866	250,026	1,287,892	512,800	302,552	0	0	0	108,329,310
381.00	15,173,270	2.46		0.02	(12,838)		(7,095)	72,850	(581)	72,259	14,000	0	280	0	0	15,580,138
381.10	6,817,382	7.50						147,031	0	147,031	33,400	0	0	0	0	17,676,759
382.00	11,320,688	1.95			(12)			56,097	0	56,097	14,900	0	0	0	0	11,604,517
383.00	3,318,441	2.57	0.01		166	0.01	178	24,018	15	24,033	7,200	72	0	0	0	3,428,759
384.00	2,904,820	1.77			1			5,701	0	5,701	0	0	0	0	0	2,939,023
385.00	3,015,332	3.89	0.22		41,677	0.21	34,144	22,387	2,845	25,232	1,900	399	0	0	0	3,157,751
387.00	68,826	3.74			5,865		5,397	417	450	867	0	0	0	0	0	74,067
387.40	689,626	4.77			1,683		318	12,377	27	12,404	0	0	0	0	0	764,161
390.10	48,089	0.24						10	0	10	0	0	0	0	0	48,149
391.10	1,742,734	1.94						3,194	0	3,194	0	0	0	0	0	1,660,899
391.11	11,382	5.05						103	0	103	0	0	0	0	0	11,999
391.12	1,900,062	14.59						31,015	0	31,015	0	0	0	0	0	2,086,150
392.00	53,871	9.56			(13,972)		(12,400)	777	(1,033)	(256)	0	0	0	0	0	52,202
393.00	16,436	0.55						8	0	8	0	0	0	0	0	16,482
394.00	5,473,958	3.68			(1,077)			38,539	0	38,539	0	0	0	0	0	5,496,065
394.12	1,953,286	0.00						0	0	0	0	0	0	0	0	1,953,286
394.50	109,781	10.36						21,062	0	21,062	0	0	0	0	0	234,039
395.00	31,717	6.08						257	0	257	0	0	0	0	0	33,257
396.00	1,367,201	1.39			(39,688)		(29,680)	1,663	(2,473)	(811)	0	0	0	0	0	1,361,504
397.10	344,072	9.42			493			4,960	0	4,960	0	0	0	0	0	200,489
397.24	1,729,110	2.38						1,719	0	1,719	0	0	0	0	0	43,983
397.50	676,536	4.87						4,519	0	4,519	0	0	0	0	0	703,452
398.00	169,988	6.94						6,344	0	6,344	0	0	0	0	0	188,055
303.00	7,112,928							285,256	0	285,256	0	0	0	0	0	8,639,095
305.00	(4,583)							0	0	0	0	0	0	0	0	(4,583)
362.00	(1,609)							0	0	0	0	0	0	0	0	(1,609)
362.10	(956,223)				657,403		128,747	0	10,729	10,729	0	0	0	0	0	(847,795)
374.20	222,752				11,527		11,527	0	961	961	0	0	0	0	0	228,516
375.71	1,098,950							2,247	0	2,247	0	0	0	0	0	1,112,431
389.20	39							0	0	0	0	0	0	0	0	39
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>		<b>4,635,342</b>	<b>3,906,228</b>	<b>386,279</b>	<b>4,292,507</b>	<b>2,637,800</b>	<b>635,758</b>	<b>280</b>	<b>0</b>	<b>0</b>	<b>379,086,415</b>

RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FFY = 13

PROJECTED 15      PROJECTED 2016

Account	2015		COR	Salvage	'5-yr Amort of NS 2010-2014	COR	Salvage	'5-yr Amort of NS 2011-2015	2016													
	NOV 30								COR	Salvage	COR	Salvage	COR	Salvage	JUNE							
	Begin. Balance	Accrual Rates 2015													% of Rets	% of Rets	% of Rets	% of Rets	Avg. Accruals	Amort. of NS	Accruals	Retirements
350.20	1,931	0.00							0	0	0	0	0	0	0	0	1,931					
351.20	861,264	3.87			122			122	10,104	10	10,115	0	0	0	0	0	932,066					
352.01	799,118	0.00							0	0	0	0	0	0	0	0	799,118					
352.02	168,680	0.00							0	0	0	0	0	0	0	0	168,680					
352.10	206,932	0.00							0	0	0	0	0	0	0	0	206,932					
353.00	405,288	0.00							0	0	0	0	0	0	0	0	405,288					
354.00	569,716	2.71							2,724	0	2,724	3,400	0	0	0	0	571,820					
355.00	123,010	0.00							0	0	0	0	0	0	0	0	123,010					
374.40	651,055	1.71	0.12		1,108	0.12		1,321	3,351	110	3,461	1,200	144	0	0	0	668,211					
374.50	1,555,652	1.32			189			0	3,556	0	3,556	0	0	0	0	0	1,580,563					
375.34	824,030	2.23	1.01		26,343	0.68		20,509	6,955	1,709	8,664	3,200	2,176	0	0	0	856,050					
375.60	72,639	1.04			290			218	76	18	94	0	0	0	0	0	73,304					
375.70	1,825,771	4.98	0.18	0.00	(45,078)	0.18	0.00	15,635	33,805	1,303	35,108	1,800	324	0	0	0	2,026,420					
375.80	6,177	2.03							26	0	26	0	0	0	0	0	6,373					
376.00	180,973,343	2.04	0.16		1,009,978	0.16		1,301,889	1,981,072	108,491	2,089,563	2,282,400	365,184	0	0	0	184,183,853					
378.00	8,503,313	3.33	0.34		103,247	0.37		164,179	109,838	13,682	123,519	14,900	5,513	0	0	0	9,247,369					
379.10	89,069	3.29			395			18	387	2	388	0	0	0	0	0	91,819					
380.00	103,656,108	2.88	0.55		2,792,833	0.59		3,000,315	1,047,085	250,026	1,297,111	507,600	299,484	0	0	0	108,819,337					
381.00	15,173,270	2.46		0.02	(12,838)		0.02	(7,095)	73,068	(591)	72,477	14,200	0	284	0	0	15,608,698					
381.10	6,817,382	7.50							147,818	0	147,818	0	0	0	0	0	7,824,577					
382.00	11,320,688	1.95			(12)				58,285	0	58,285	15,800	0	0	0	0	11,647,002					
383.00	3,318,441	2.57	0.01		166	0.01		178	24,141	15	24,156	8,000	60	0	0	0	3,444,834					
384.00	2,904,820	1.77			1				5,701	0	5,701	0	0	0	0	0	2,944,724					
385.00	3,015,332	3.89	0.22		41,677	0.21		34,144	22,434	2,845	25,280	1,900	399	0	0	0	3,180,732					
387.00	68,826	3.74			5,865			5,397	417	450	867	0	0	0	0	0	74,933					
387.40	689,626	4.77			1,683			316	12,377	27	12,404	0	0	0	0	0	776,565					
390.10	48,089	0.24							10	0	10	0	0	0	0	0	48,159					
391.10	1,742,734	1.94							3,198	0	3,198	0	0	0	0	0	1,664,097					
391.11	11,382	5.05							103	0	103	0	0	0	0	0	12,102					
391.12	1,900,062	14.59							31,015	0	31,015	0	0	0	0	0	2,117,164					
392.00	53,871	9.56			(13,972)		0.44	(12,400)	777	(1,033)	(256)	0	0	0	0	0	51,946					
393.00	16,436	0.55							8	0	8	0	0	0	0	0	16,489					
394.00	5,473,958	3.68			(1,077)				38,555	0	38,555	0	0	0	0	0	5,534,619					
394.12	1,953,286	0.00							0	0	0	0	0	0	0	0	1,953,286					
394.50	109,781	10.36							21,182	0	21,182	0	0	0	0	0	255,222					
395.00	31,717	6.08							257	0	257	0	0	0	0	0	33,514					
396.00	1,367,201	1.39			(39,688)			(29,688)	1,663	(2,473)	(811)	0	0	0	0	0	1,360,693					
397.10	344,072	9.42			493				4,997	0	4,997	0	0	0	0	0	205,486					
397.24	1,729,110	2.38							1,736	0	1,736	0	0	0	0	0	45,719					
397.50	675,536	4.87							4,532	0	4,532	0	0	0	0	0	707,984					
398.00	169,968	6.94							6,344	0	6,344	0	0	0	0	0	194,399					
303.00	7,112,928								285,256	0	285,256	0	0	0	0	0	8,924,351					
305.00	(4,583)								0	0	0	0	0	0	0	0	(4,583)					
362.00	(1,609)								0	0	0	0	0	0	0	0	(1,609)					
362.10	(956,223)				657,403			128,747	0	10,729	10,729	0	0	0	0	0	(837,066)					
374.20	222,752				11,527			11,527	0	961	961	0	0	0	0	0	229,476					
375.71	1,098,950								2,247	0	2,247	0	0	0	0	0	1,114,677					
389.20	39								0	0	0	0	0	0	0	0	39					
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>			<b>4,635,342</b>	<b>3,945,100</b>	<b>386,279</b>	<b>4,331,378</b>	<b>2,854,400</b>	<b>673,304</b>	<b>284</b>	<b>0</b>	<b>0</b>	<b>379,880,373</b>					

RESERVE BRINGFORWARD

Number of months for accrual calculation = 12 Number of months in FTY = 13

Account	PROJECTED 15				PROJECTED 2016				2016								
	2015	'Accrual	COR	Salvage	'5-yr	COR	Salvage	'5-yr	JULY								
	NOV 30	Rates			Amort of NS			Amort of NS	Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal	Salvage	Acquisitions	Ending Balance	
Begin. Balance	2015	% of Rets	% of Rets	2010-2014	% of Rets	% of Rets	2011-2015										
350.20	1,931	0.00							0	0	0	0	0	0	0	0	1,931
351.20	861,264	3.87			122			122	10,104	10	10,115	0	0	0	0	0	942,181
352.01	799,118	0.00							0	0	0	0	0	0	0	0	799,118
352.02	168,680	0.00							0	0	0	0	0	0	0	0	168,680
352.10	206,932	0.00							0	0	0	0	0	0	0	0	206,932
353.00	405,288	0.00							0	0	0	0	0	0	0	0	405,288
354.00	569,716	2.71							2,782	0	2,782	3,800	0	0	0	0	570,802
355.00	123,010	0.00							0	0	0	0	0	0	0	0	123,010
374.40	651,055	1.71	0.12		1,108	0.12		1,321	3,365	110	3,475	1,700	204	0	0	0	669,782
374.50	1,555,652	1.32			189			0	3,556	0	3,556	0	0	0	0	0	1,584,119
375.34	824,030	2.23	1.01		26,343	0.68		20,509	7,003	1,709	8,712	4,000	2,720	0	0	0	858,042
375.60	72,639	1.04			290			218	76	18	94	0	0	0	0	0	73,398
375.70	1,825,771	4.98	0.18	0.00	(45,078)	0.18	0.00	15,635	33,862	1,303	35,165	2,000	380	0	0	0	2,059,224
375.80	6,177	2.03							28	0	28	0	0	0	0	0	6,401
376.00	180,973,343	2.04	0.16		1,009,978	0.16		1,301,889	2,010,304	108,491	2,118,794	2,505,100	400,816	0	0	0	183,396,731
378.00	8,503,313	3.33	0.34		103,247	0.37		164,179	110,167	13,682	123,848	18,200	6,734	0	0	0	9,346,284
379.10	89,089	3.29			395			18	387	2	388	0	0	0	0	0	92,208
380.00	103,656,108	2.88	0.55		2,792,833	0.59		3,000,315	1,056,805	250,026	1,306,631	598,600	353,174	0	0	0	109,174,194
381.00	15,173,270	2.46		0.02	(12,838)			(7,095)	73,301	(591)	72,709	17,400	0	348	0	0	15,664,356
381.10	6,817,382	7.50							147,760	0	147,760	(2,800)	0	0	0	0	7,975,137
382.00	11,320,688	1.95			(12)				58,495	0	58,495	20,300	0	0	0	0	11,685,196
383.00	3,318,441	2.57	0.01		166	0.01		178	24,285	15	24,300	10,800	108	0	0	0	3,458,227
384.00	2,904,820	1.77			1				5,701	0	5,701	0	0	0	0	0	2,950,424
385.00	3,015,332	3.89	0.22		41,677	0.21		34,144	22,485	2,845	25,330	2,400	504	0	0	0	3,203,158
387.00	68,826	3.74			5,865			5,397	417	450	867	0	0	0	0	0	75,800
387.40	689,626	4.77			1,683			318	12,377	27	12,404	0	0	0	0	0	788,968
390.10	48,089	0.24							10	0	10	0	0	0	0	0	48,169
391.10	1,742,734	1.94							3,200	0	3,200	0	0	0	0	0	1,667,297
391.11	11,382	5.05							103	0	103	0	0	0	0	0	12,204
391.12	1,900,062	14.59							33,585	0	33,585	0	0	0	0	0	2,150,750
392.00	53,871	9.56			(13,972)		0.44	(12,400)	777	(1,033)	(256)	0	0	0	0	0	51,689
393.00	16,436	0.55							8	0	8	0	0	0	0	0	16,497
394.00	5,473,958	3.68			(1,077)				38,567	0	38,567	0	0	0	0	0	5,573,186
394.12	1,953,286	0.00							0	0	0	0	0	0	0	0	1,953,286
394.50	109,781	10.36							21,274	0	21,274	0	0	0	0	0	276,495
395.00	31,717	6.08							257	0	257	0	0	0	0	0	33,770
396.00	1,367,201	1.39			(39,688)			(29,680)	1,663	(2,473)	(811)	0	0	0	0	0	1,369,883
397.10	344,072	9.42			493				5,026	0	5,026	0	0	0	0	0	210,512
397.24	1,729,110	2.36							1,749	0	1,749	0	0	0	0	0	47,468
397.50	676,536	4.87							4,541	0	4,541	0	0	0	0	0	712,525
398.00	169,968	6.94							6,344	0	6,344	0	0	0	0	0	200,743
303.00	7,112,928								285,256	0	285,256	0	0	0	0	0	9,209,606
305.00	(4,583)								0	0	0	0	0	0	0	0	(4,583)
362.00	(1,699)								0	0	0	0	0	0	0	0	(1,609)
362.10	(956,223)				657,403			128,747	0	10,729	10,729	0	0	0	0	0	(826,337)
374.20	222,752				11,527			11,527	0	961	961	0	0	0	0	0	230,437
375.71	1,098,950								2,247	0	2,247	0	0	0	0	0	1,116,924
389.20	39								0	0	0	0	0	0	0	0	39
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>			<b>4,635,342</b>	<b>3,987,664</b>	<b>386,279</b>	<b>4,373,943</b>	<b>3,181,500</b>	<b>764,620</b>	<b>348</b>	<b>0</b>	<b>0</b>	<b>380,318,544</b>

RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FFY = 13

PROJECTED 15      PROJECTED 2016

Account	2015				PROJECTED 2016				2016								
	NOV 30 Begin. Balance	'Accrual Rates 2015	COR % of Rets	Salvage % of Rets	'5-yr Amort of NS 2010-2014	COR % of Rets	Salvage % of Rets	'5-yr Amort of NS 2011-2015	AUGUST								
									Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal	Salvage	Acquisitions	Ending Balance	
350.20	1,931	0.00						0	0	0	0	0	0	0	0	0	1,931
351.20	861,264	3.87			122		122	10,104	10	10,115	0	0	0	0	0	0	952,295
352.01	799,118	0.00						0	0	0	0	0	0	0	0	0	799,118
352.02	168,680	0.00						0	0	0	0	0	0	0	0	0	168,680
352.10	206,932	0.00						0	0	0	0	0	0	0	0	0	206,932
353.00	405,288	0.00						0	0	0	0	0	0	0	0	0	405,288
354.00	569,716	2.71						2,833	0	2,833	2,500	0	0	0	0	0	571,135
355.00	123,010	0.00						0	0	0	0	0	0	0	0	0	123,010
374.40	651,655	1.71	0.12		1,108	0.12	1,321	3,379	110	3,489	1,000	120	0	0	0	0	672,151
374.50	1,555,652	1.32			189		0	3,556	0	3,556	0	0	0	0	0	0	1,587,676
375.34	824,030	2.23	1.01		26,343	0.68	20,509	7,046	1,709	8,755	2,500	1,700	0	0	0	0	862,598
375.60	72,639	1.04			290		218	76	18	94	0	0	0	0	0	0	73,492
375.70	1,825,771	4.98	0.18	0.00	(45,078)	0.18	0.00	15,635	33,936	1,303	35,238	2,900	522	0	0	0	2,091,041
375.80	6,177	2.03						28	0	28	0	0	0	0	0	0	6,428
376.00	180,973,343	2.04	0.16		1,009,978	0.16	1,301,889	2,037,530	108,491	2,146,020	1,968,900	315,024	0	0	0	0	183,258,828
378.00	8,503,313	3.33	0.34		103,247	0.37	164,179	110,462	13,682	124,144	11,700	4,329	0	0	0	0	9,454,398
379.10	89,069	3.29			395		18	387	2	388	0	0	0	0	0	0	92,596
380.00	103,656,108	2.88	0.55		2,792,833	0.59	3,000,315	1,065,071	250,026	1,315,097	391,000	230,690	0	0	0	0	109,867,601
381.00	15,173,270	2.46		0.02	(12,838)		(7,095)	73,510	(591)	72,918	11,100	0	222	0	0	0	15,726,396
381.10	6,817,382	7.50						147,704	0	147,704	100	0	0	0	0	0	8,122,740
382.00	11,320,688	1.95			(12)			58,685	0	58,685	12,600	0	0	0	0	0	11,731,282
383.00	3,318,441	2.57	0.01		166	0.01	178	24,418	15	24,433	6,500	65	0	0	0	0	3,476,094
384.00	2,904,820	1.77			1			5,701	0	5,701	0	0	0	0	0	0	2,956,125
385.00	3,015,332	3.89	0.22		41,677	0.21	34,144	22,529	2,845	25,375	1,500	315	0	0	0	0	3,226,718
387.00	68,826	3.74			5,866			417	450	867	0	0	0	0	0	0	76,667
387.40	689,626	4.77			1,683		318	12,377	27	12,404	0	0	0	0	0	0	801,372
390.10	48,089	0.24						10	0	10	0	0	0	0	0	0	48,179
391.10	1,742,734	1.94						3,203	0	3,203	0	0	0	0	0	0	1,670,501
391.11	11,382	5.05						103	0	103	0	0	0	0	0	0	12,307
391.12	1,900,062	14.59						36,156	0	36,156	0	0	0	0	0	0	2,166,906
392.00	53,871	9.56			(13,972)		(12,400)	777	(1,033)	(266)	0	0	0	0	0	0	51,433
393.00	16,436	0.55						8	0	8	0	0	0	0	0	0	16,505
394.00	5,473,958	3.68			(1,077)			38,582	0	38,582	0	0	0	0	0	0	5,611,768
394.12	1,953,286	0.00						0	0	0	0	0	0	0	0	0	1,953,286
394.50	109,781	10.36						21,393	0	21,393	0	0	0	0	0	0	297,888
395.00	31,717	6.08						257	0	257	0	0	0	0	0	0	34,027
396.00	1,367,201	1.39			(39,688)		(29,680)	1,663	(2,473)	(811)	0	0	0	0	0	0	1,359,072
397.10	344,072	9.42			493			5,062	0	5,062	0	0	0	0	0	0	215,574
397.24	1,729,110	2.38						1,766	0	1,766	0	0	0	0	0	0	49,233
397.50	676,536	4.87						4,554	0	4,554	0	0	0	0	0	0	717,079
398.00	169,968	6.94						6,344	0	6,344	0	0	0	0	0	0	207,086
303.00	7,112,928							285,256	0	285,256	526,497	0	0	0	0	0	8,968,365
305.00	(4,583)							0	0	0	0	0	0	0	0	0	(4,583)
362.00	(1,609)							0	0	0	0	0	0	0	0	0	(1,609)
382.10	(956,223)				657,403		128,747	0	10,729	10,729	0	0	0	0	0	0	(815,608)
374.20	222,752				11,527		11,527	0	961	961	0	0	0	0	0	0	231,397
375.71	1,098,950							2,247	0	2,247	0	0	0	0	0	0	1,119,171
389.20	39							0	0	0	0	0	0	0	0	0	39
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>		<b>4,635,342</b>	<b>4,027,129</b>	<b>386,279</b>	<b>4,413,407</b>	<b>2,938,797</b>	<b>552,765</b>	<b>222</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>381,240,611</b>

RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FFY = 13

PROJECTED 15

PROJECTED 2016

Account	2015		'Accrual Rates	COR % of Rets	Salvage % of Rets	'5-yr		Salvage % of Rets	'5-yr Amort of NS	2016							
	NOV 30					COR	Amort of NS			COR	SEPTEMBER						
	Begin. Balance	2015									2010-2014	2011-2015	Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal
350.20	1,931	0.00								0	0	0	0	0	0	0	1,931
351.20	861,264	3.87			122		122		10,104	10	10,115	0	0	0	0	0	962,410
352.01	799,118	0.00							0	0	0	0	0	0	0	0	799,118
352.02	168,680	0.00							0	0	0	0	0	0	0	0	168,680
352.10	206,932	0.00							0	0	0	0	0	0	0	0	206,932
353.00	405,288	0.00							0	0	0	0	0	0	0	0	405,288
354.00	569,716	2.71							2,882	0	2,882	3,200	0	0	0	0	570,818
355.00	123,010	0.00							0	0	0	0	0	0	0	0	123,010
374.40	651,055	1.71	0.12		1,108	0.12	1,321		3,392	110	3,502	1,400	168	0	0	0	674,086
374.50	1,555,652	1.32			189		0		3,556	0	3,556	0	0	0	0	0	1,591,232
375.34	824,030	2.23	1.01		26,343	0.68	20,509		7,087	1,709	8,796	3,300	2,244	0	0	0	865,850
375.60	72,639	1.04			290		218		76	18	94	0	0	0	0	0	73,586
375.70	1,825,771	4.98	0.18	0.00	(45,078)	0.18	15,635		34,011	1,303	35,314	2,000	360	0	0	0	2,123,994
375.80	6,177	2.03							28	0	28	0	0	0	0	0	6,456
376.00	180,973,343	2.04	0.16		1,009,978	0.16	1,301,889		2,063,927	108,491	2,172,417	2,156,100	344,976	0	0	0	182,930,169
378.00	8,503,313	3.33	0.34		103,247	0.37	164,179		110,742	13,682	124,423	15,100	5,587	0	0	0	9,558,135
379.10	89,069	3.29			395		18		387	2	388	0	0	0	0	0	92,984
380.00	103,856,108	2.88	0.55		2,792,833	0.59	3,000,315		1,073,137	250,026	1,323,163	501,800	296,062	0	0	0	110,392,902
381.00	15,173,270	2.46		0.02	(12,838)		(7,095)		73,707	(591)	73,116	14,500	0	290	0	0	15,785,302
381.10	6,817,382	7.50							147,707	0	147,707	0	0	0	0	0	8,270,447
382.00	11,320,688	1.95			(12)				58,865	0	58,865	16,700	0	0	0	0	11,773,446
383.00	3,318,441	2.57	0.01		166	0.01	178		24,542	15	24,557	8,800	88	0	0	0	3,491,763
384.00	2,904,820	1.77			1				5,701	0	5,701	0	0	0	0	0	2,961,825
385.00	3,015,332	3.89	0.22		41,677	0.21	34,144		22,572	2,845	25,417	2,000	420	0	0	0	3,249,715
387.00	68,826	3.74			5,865		5,397		417	450	867	0	0	0	0	0	77,534
387.40	689,826	4.77			1,683		318		12,377	27	12,404	0	0	0	0	0	813,775
390.10	48,089	0.24							10	0	10	0	0	0	0	0	48,189
391.10	1,742,734	1.94							3,207	0	3,207	0	0	0	0	0	1,673,707
391.11	11,382	5.05							103	0	103	0	0	0	0	0	12,410
391.12	1,900,062	14.59							36,156	0	36,158	0	0	0	0	0	2,223,063
392.00	53,871	9.56			(13,972)		0.44	(12,400)	777	(1,033)	(258)	0	0	0	0	0	51,177
393.00	16,436	0.55							8	0	8	0	0	0	0	0	16,512
394.00	5,473,958	3.68			(1,077)				38,598	0	38,598	0	0	0	0	0	5,650,366
394.12	1,953,286	0.00							0	0	0	0	0	0	0	0	1,953,286
394.50	109,781	10.36							21,513	0	21,513	0	0	0	0	0	319,401
395.00	31,717	6.08							257	0	257	0	0	0	0	0	34,284
396.00	1,367,201	1.39			(39,688)		(29,680)		1,663	(2,473)	(811)	0	0	0	0	0	1,358,261
397.10	344,072	9.42			493				5,100	0	5,100	0	0	0	0	0	220,674
397.24	1,729,110	2.38							1,783	0	1,783	0	0	0	0	0	51,016
397.50	678,536	4.87							4,567	0	4,567	0	0	0	0	0	721,646
398.00	169,968	6.94							8,344	0	6,344	0	0	0	0	0	213,432
303.00	7,112,928								285,256	0	285,256	0	0	0	0	0	9,253,620
305.00	(4,583)								0	0	0	0	0	0	0	0	(4,583)
362.00	(1,609)								0	0	0	0	0	0	0	0	(1,609)
362.10	(958,223)				657,403		128,747		0	10,729	10,729	0	0	0	0	0	(804,879)
374.20	222,752				11,527		11,527		0	961	961	0	0	0	0	0	232,358
375.71	1,098,950								2,247	0	2,247	0	0	0	0	0	1,121,418
389.20	39								0	0	0	0	0	0	0	0	39
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>		<b>4,635,342</b>		<b>4,062,804</b>	<b>386,279</b>	<b>4,449,082</b>	<b>2,724,900</b>	<b>649,905</b>	<b>290</b>	<b>0</b>	<b>0</b>	<b>382,315,178</b>

RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FFY = 13

PROJECTED 15      PROJECTED 2016

Account	2015		COR	Salvage % of Rets	PROJECTED 15		Salvage % of Rets	PROJECTED 2016		2016						
	NOV 30	Accrual Rates 2015			Amort of NS 2010-2014	COR % of Rets		Amort of NS 2011-2015	OCTOBER							
									Begin. Balance	2015	% of Rets	Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal
350.20	1,931	0.00							0	0	0	0	0	0	0	1,931
351.20	861,264	3.87			122			122	10,104	10	10,115	0	0	0	0	972,524
352.01	799,118	0.00							0	0	0	0	0	0	0	799,118
352.02	168,680	0.00							0	0	0	0	0	0	0	168,680
352.10	206,932	0.00							0	0	0	0	0	0	0	206,932
353.00	405,288	0.00							0	0	0	0	0	0	0	405,288
354.00	569,716	2.71							2,939	0	2,939	3,700	0	0	0	570,056
355.00	123,010	0.00							0	0	0	0	0	0	0	123,010
374.40	651,055	1.71	0.12		1,108			1,321	3,405	110	3,515	1,100	132	0	0	676,368
374.50	1,555,652	1.32			189			0	3,566	0	3,566	0	0	0	0	1,594,798
375.34	824,030	2.23	1.01		26,343			20,509	7,131	1,709	8,840	3,300	2,244	0	0	869,146
375.60	72,639	1.04			290			218	76	18	94	0	0	0	0	73,681
375.70	1,825,771	4.98	0.18	0.00	(45,078)			15,635	34,087	1,303	35,390	3,300	594	0	0	2,155,491
375.80	6,177	2.03							28	0	28	0	0	0	0	6,484
376.00	180,973,343	2.04	0.16		1,009,978			1,301,889	2,090,183	108,491	2,198,674	2,139,300	342,288	0	0	182,647,255
378.00	6,503,313	3.33	0.34		103,247			164,179	111,047	13,682	124,728	15,500	5,735	0	0	9,661,628
379.10	89,089	3.29			395			18	387	2	388	0	0	0	0	93,373
380.00	103,656,108	2.88	0.55		2,792,833			3,000,315	1,082,119	250,026	1,332,145	541,100	319,249	0	0	110,864,699
381.00	15,173,270	2.46		0.02	(12,838)			(7,095)	73,922	(591)	73,331	14,700	0	294	0	15,844,227
381.10	6,817,382	7.50							148,071	0	148,071	17,000	0	0	0	8,401,519
382.00	11,320,688	1.95			(12)				59,054	0	59,054	15,600	0	0	0	11,816,901
383.00	3,318,441	2.57	0.01		166			178	24,666	15	24,683	7,500	75	0	0	3,508,871
384.00	2,904,820	1.77			1				5,701	0	5,701	0	0	0	0	2,967,526
385.00	3,015,332	3.89	0.22		41,677			34,144	22,619	2,845	25,464	2,000	420	0	0	3,272,758
387.00	68,826	3.74			5,865			5,397	417	450	867	0	0	0	0	78,401
387.40	689,626	4.77			1,683			318	12,377	27	12,404	0	0	0	0	826,179
390.10	48,089	0.24							10	0	10	0	0	0	0	48,199
391.10	1,742,734	1.94							3,210	0	3,210	0	0	0	0	1,676,918
391.11	11,382	5.05							103	0	103	0	0	0	0	12,513
391.12	1,900,062	14.59							36,156	0	36,156	0	0	0	0	2,259,219
392.00	53,871	9.56			(13,972)			(12,400)	777	(1,033)	(256)	0	0	0	0	50,920
393.00	16,436	0.55							8	0	8	0	0	0	0	16,520
394.00	5,473,958	3.68			(1,077)				38,614	0	38,614	0	0	0	0	5,688,980
394.12	1,953,286	0.00							0	0	0	0	0	0	0	1,953,286
394.50	109,781	10.36							21,638	0	21,638	0	0	0	0	341,039
395.00	31,717	6.08							257	0	257	0	0	0	0	34,541
396.00	1,367,201	1.39			(39,688)			(29,680)	1,663	(2,473)	(811)	0	0	0	0	1,357,451
397.10	344,072	9.42			493				5,138	0	5,138	0	0	0	0	225,812
397.24	1,729,110	2.38							1,800	0	1,800	0	0	0	0	52,816
397.50	678,536	4.87							4,580	0	4,580	0	0	0	0	726,226
398.00	169,968	6.94							6,344	0	6,344	0	0	0	0	219,777
303.00	7,112,928								285,256	0	285,256	0	0	0	0	9,538,876
305.00	(4,583)								0	0	0	0	0	0	0	(4,583)
362.00	(1,609)								0	0	0	0	0	0	0	(1,609)
362.10	(986,223)				657,403			128,747	0	10,729	10,729	0	0	0	0	(794,150)
374.20	222,752				11,527			11,527	0	961	961	0	0	0	0	233,318
375.71	1,098,950								2,247	0	2,247	0	0	0	0	1,123,684
389.20	39								0	0	0	0	0	0	0	39
Total	367,701,938				4,540,655			4,635,342	4,099,693	386,279	4,485,971	2,764,100	670,737	294	0	383,366,606



RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FTY = 13

PROJECTED 15

PROJECTED 2016

Account	2015		'Accruat Rates	COR % of Rets	Salvage % of Rets	'5-yr		COR % of Rets	Salvage % of Rets	'5-yr	2016							
	NOV 30					Amort of NS 2010-2014	COR % of Rets				Amort of NS 2011-2015	NOVEMBER						
	Begin. Balance	2015										Avg. Accruals	Amort. of NS	Accruals	Retirements	Cost of Removal	Salvage	Acquisitions
350.20	1,931	0.00									0	0	0	0	0	0	1,931	
351.20	861,264	3.87			122		122				10,104	10	10,115	0	0	0	982,639	
352.01	799,118	0.00									0	0	0	0	0	0	799,118	
352.02	168,680	0.00									0	0	0	0	0	0	168,680	
352.10	206,932	0.00									0	0	0	0	0	0	206,932	
353.00	405,288	0.00									0	0	0	0	0	0	405,288	
354.00	569,716	2.71									2,982	0	2,982	1,800	0	0	571,238	
355.00	123,010	0.00									0	0	0	0	0	0	123,010	
374.40	651,055	1.71	0.12		1,108	0.12	1,321				3,413	110	3,523	700	84	0	679,107	
374.50	1,555,652	1.32			189		0				3,556	0	3,556	0	0	0	1,598,345	
375.34	824,030	2.23	1.01		26,343	0.68	20,509				7,164	1,709	8,873	1,700	1,156	0	875,164	
375.60	72,639	1.04			290		218				76	18	94	0	0	0	73,775	
375.70	1,825,771	4.98	0.18	0.00	(45,078)	0.18	15,635				34,176	1,303	35,479	2,700	486	0	2,187,784	
375.80	6,177	2.03					18				28	0	28	0	0	0	6,512	
376.00	160,973,343	2.04	0.16		1,009,978	0.16	1,301,889				2,110,566	108,491	2,219,057	1,238,200	198,112	0	183,430,000	
378.00	8,503,313	3.33	0.34		103,247	0.37	164,179				111,276	13,682	124,958	7,900	2,923	0	9,775,763	
379.10	69,089	3.29			395		18				387	2	388	0	0	0	93,761	
380.00	103,656,108	2.88	0.55	0.02	2,792,633	0.59	3,000,315				1,088,977	250,026	1,339,003	266,600	157,294	0	111,779,808	
381.00	15,173,270	2.46			(12,838)		(7,995)				74,084	(591)	73,493	7,600	0	152	15,910,272	
381.10	6,817,382	7.50									148,811	0	148,811	15,900	0	0	6,834,430	
382.00	11,320,688	1.95			(12)						59,193	0	59,193	8,500	0	0	11,867,594	
383.00	3,318,441	2.57	0.01		166	0.01	178				24,759	15	24,773	4,400	44	0	3,529,200	
384.00	2,904,820	1.77			1						5,701	0	5,701	0	0	0	2,973,227	
385.00	3,015,332	3.89	0.22		41,677	0.21	34,144				22,654	2,845	25,499	1,000	210	0	3,297,048	
387.00	68,826	3.74			5,865		5,397				417	450	867	0	0	0	79,268	
387.40	689,626	4.77			1,683		318				12,377	27	12,404	0	0	0	838,583	
390.10	48,089	0.24									10	0	10	0	0	0	48,209	
391.10	1,742,734	1.94									3,214	0	3,214	0	0	0	1,880,132	
391.11	11,382	5.05									103	0	103	0	0	0	12,616	
391.12	1,900,062	14.59									36,156	0	36,156	0	0	0	2,295,375	
392.00	53,871	9.56			(13,972)		(12,400)				777	(1,033)	(256)	0	0	0	50,664	
393.00	16,436	0.55									8	0	8	0	0	0	16,528	
394.00	5,473,058	3.68			(1,077)						38,633	0	38,633	0	0	0	5,727,614	
394.12	1,953,296	0.00									0	0	0	0	0	0	1,953,296	
394.50	109,781	10.36									21,781	0	21,781	0	0	0	362,820	
395.00	31,717	6.08									257	0	257	0	0	0	34,797	
396.00	1,367,201	1.39			(39,688)		(29,680)				1,663	(2,473)	(811)	0	0	0	1,356,640	
397.10	344,072	9.42			493						5,183	0	5,183	0	0	0	230,995	
397.24	1,729,110	2.38									1,820	0	1,820	0	0	0	54,636	
397.50	676,536	4.87									4,595	0	4,595	0	0	0	730,820	
398.00	169,968	6.94									6,344	0	6,344	0	0	0	226,121	
303.00	7,112,928										285,256	0	285,256	0	0	0	9,824,131	
305.00	(4,583)										0	0	0	0	0	0	(4,583)	
362.00	(1,609)										0	0	0	0	0	0	(1,609)	
362.10	(956,223)				657,403		128,747				0	10,729	10,729	0	0	0	(783,421)	
374.20	222,752				11,527		11,527				0	961	961	0	0	0	234,279	
375.71	1,098,960										2,247	0	2,247	0	0	0	1,125,911	
389.20	39										0	0	0	0	0	0	39	
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>		<b>4,635,342</b>				<b>4,128,748</b>	<b>386,279</b>	<b>4,515,027</b>	<b>1,557,000</b>	<b>360,309</b>	<b>152</b>	<b>0</b>	<b>385,964,476</b>

RESERVE BRINGFORWARD

Number of months for accrual calculation = 12      Number of months in FFY = 13

PROJECTED 15      PROJECTED 2016

Account	2015		'Accrual Rates	COR	Salvage % of Rets	'5-yr		'5-yr	2016							Ending Balance		
	NOV 30	Begin. Balance				Amort of NS	COR		Salvage	Amort of NS	DECEMBER							
											2010-2014	% of Rets	% of Rets	2011-2015	Avg. Accruals		Amort. of NS	Accruals
350.20	1,931	0.00							0	0	0	0	0	0	0	0	1,931	
351.20	861,264	3.87				122		122	10,104	10	10,115	0	0	0	0	0	992,754	
352.01	799,118	0.00							0	0	0	0	0	0	0	0	799,118	
352.02	168,680	0.00							0	0	0	0	0	0	0	0	168,680	
352.10	206,932	0.00							0	0	0	0	0	0	0	0	206,932	
353.00	405,288	0.00							0	0	0	0	0	0	0	0	405,288	
354.00	569,716	2.71							2,997	0	2,997	(100)	0	0	0	0	574,335	
355.00	123,010	0.00							0	0	0	0	0	0	0	0	123,010	
374.40	651,055	1.71	0.12			1,108	0.12	1,321	3,420	110	3,530	600	72	0	0	0	681,965	
374.50	1,555,652	1.32				189		0	3,556	0	3,556	0	0	0	0	0	1,601,901	
375.34	824,030	2.23	1.01			26,343	0.68	20,509	7,180	1,709	8,889	600	408	0	0	0	883,045	
375.60	72,639	1.04				290		218	76	18	94	0	0	0	0	0	73,869	
375.70	1,825,771	4.98	0.18	0.00		(45,078)	0.18	15,635	36,606	1,303	37,909	164,400	29,592	0	0	0	2,031,701	
375.80	6,177	2.03							28	0	28	0	0	0	0	0	6,540	
376.00	180,973,343	2.04	0.16			1,009,978	0.16	1,301,889	2,119,802	108,491	2,228,292	220,600	35,296	0	0	0	185,402,396	
378.00	8,503,313	3.33	0.34			103,247	0.37	164,179	111,380	13,682	125,061	2,200	814	0	0	0	9,887,811	
379.10	89,069	3.29				395		18	387	2	388	0	0	0	0	0	94,150	
380.00	103,656,109	2.88	0.55			2,792,833	0.59	3,000,315	1,091,725	250,026	1,341,752	40,500	23,895	0	0	0	113,057,164	
381.00	15,173,270	2.46		0.02		(12,838)		0.02	74,156	(591)	73,567	2,200	0	44	0	0	15,981,682	
381.10	6,817,382	7.50							148,843	0	148,843	(15,700)	0	0	0	0	8,698,973	
382.00	11,320,688	1.95				(12)			59,268	0	59,268	4,000	0	0	0	0	11,922,661	
383.00	3,318,441	2.57	0.01			166	0.01	178	24,815	15	24,830	2,900	29	0	0	0	3,551,101	
384.00	2,904,820	1.77				1			5,701	0	5,701	0	0	0	0	0	2,978,927	
385.00	3,015,332	3.89	0.22			41,677	0.21	34,144	22,669	2,845	25,515	300	63	0	0	0	3,322,200	
387.00	68,828	3.74				5,865		5,397	417	450	867	0	0	0	0	0	80,135	
387.40	689,625	4.77				1,683		318	12,377	27	12,404	0	0	0	0	0	850,986	
390.10	48,089	0.24							10	0	10	0	0	0	0	0	48,219	
391.10	1,742,734	1.94							3,111	0	3,111	260,946	0	0	0	0	1,422,297	
391.11	11,382	5.05							103	0	103	0	0	0	0	0	12,718	
391.12	1,900,062	14.59							24,613	0	24,613	1,898,784	0	0	0	0	421,205	
392.00	53,871	9.56				(13,972)			756	(1,033)	(277)	5,209	0	2,292	0	0	47,470	
393.00	16,436	0.55							7	0	7	2,300	0	0	0	0	14,235	
394.00	5,473,958	3.68				(1,077)			38,908	0	38,908	158,166	0	0	0	0	5,608,356	
394.12	1,953,286	0.00							0	0	0	0	0	0	0	0	1,953,286	
394.50	109,781	10.36							25,717	0	25,717	0	0	0	0	0	368,538	
395.00	31,717	6.08							221	0	221	13,946	0	0	0	0	21,073	
396.00	1,367,201	1.39				(39,688)		(29,680)	1,663	(2,473)	(811)	0	0	0	0	0	1,355,830	
397.10	344,072	9.42				493			5,739	0	5,739	168,831	0	0	0	0	67,903	
397.24	1,729,110	2.38							2,372	0	2,372	0	0	0	0	0	57,008	
397.50	676,536	4.87							5,007	0	5,007	0	0	0	0	0	735,828	
398.00	169,968	6.94							6,233	0	6,233	38,545	0	0	0	0	193,810	
303.00	7,112,928								285,256	0	285,256	666,156	0	0	0	0	9,443,231	
305.00	(4,583)								0	0	0	0	0	0	0	0	(4,583)	
362.00	(1,609)								0	0	0	0	0	0	0	0	(1,609)	
362.10	(956,223)					657,403		128,747	0	10,729	10,729	0	25,000	0	0	0	(797,692)	
374.20	222,752					11,527		11,527	0	961	961	0	0	0	0	0	235,240	
375.71	1,098,950								0	0	0	0	0	0	0	0	1,125,911	
389.20	39								0	0	0	0	0	0	0	0	39	
<b>Total</b>	<b>367,701,938</b>					<b>4,540,655</b>		<b>4,635,342</b>	<b>4,135,226</b>	<b>386,279</b>	<b>4,521,505</b>	<b>3,635,382</b>	<b>115,169</b>	<b>2,336</b>	<b>0</b>	<b>0</b>	<b>386,737,766</b>	

RESERVE BRINGFORWARD

Account	Number of months for accrual calculation =		PROJECTED 15		PROJECTED 2016		'5-yr Amort of NS 2011-2015
	2015 NOV 30	Accrual Rates 2015	COR % of Rets	Salvage % of Rets	'5-yr Amort of NS 2010-2014	COR % of Rets	
350.20	1,931	0.00					
351.20	861,264	3.87			122		122
352.01	799,118	0.00					
352.02	168,680	0.00					
352.10	206,932	0.00					
353.00	405,268	0.00					
354.00	569,716	2.71					
355.00	123,010	0.00					
374.40	651,055	1.71	0.12		1,108	0.12	1,321
374.50	1,555,652	1.32			169		0
375.34	824,030	2.23	1.01		26,343	0.68	20,509
375.60	72,639	1.04			290		218
375.70	1,825,771	4.98	0.18	0.00	(45,078)	0.18	15,635
375.80	6,177	2.03					
376.00	180,973,343	2.04	0.16		1,009,978	0.16	1,301,889
378.00	9,503,313	3.33	0.34		103,247	0.37	164,179
379.10	89,069	3.29			395		18
380.00	103,656,109	2.86	0.55		2,792,833	0.59	3,000,315
381.00	15,173,270	2.46		0.02	(12,859)		(7,095)
381.10	6,817,392	7.50					
382.00	11,320,688	1.95			(12)		178
383.00	3,318,441	2.57	0.01		166	0.01	
384.00	2,904,820	1.77					
385.00	3,015,332	3.89	0.22		41,677	0.21	34,144
387.00	86,826	3.74			5,865		5,397
387.40	699,676	4.77			1,693		318
390.10	48,069	0.24					
391.10	1,742,734	1.94					
391.11	11,382	5.05					
391.12	1,900,062	14.59			(13,972)		(12,400)
392.00	53,871	9.56					
393.00	16,436	0.35					
394.00	5,473,959	3.68			(1,077)		
394.12	1,953,286	0.00					
394.50	109,781	10.36					
395.00	31,717	6.08					
396.00	1,367,201	1.39			(39,668)		(29,640)
397.10	344,072	9.42			463		
397.24	1,729,110	2.36					
397.50	676,536	4.87					
398.00	769,968	6.94					
303.00	7,112,929						
305.00	(4,583)						
362.00	(1,609)						
362.10	(956,223)				657,403		128,747
374.20	222,752				11,527		11,527
375.71	1,090,950						
369.20	39						
<b>Total</b>	<b>367,701,938</b>				<b>4,540,655</b>		<b>4,635,342</b>