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REPORT NAME: 2015 Meter Sampling Program Report

COMPANY NAME: NW Natural

DOES REPORT CONTAIN CONFIDENTIAL INFORMATION? No Yes

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If known, please select designation: RE (Electric) RG (Gas) RW (Water) RO (Other)

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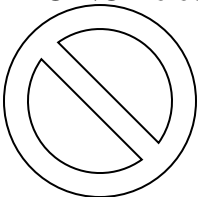
Other at request of Commission Staff

Is this report associated with a specific docket/case? No Yes

If yes, enter docket number: RG 41

List applicable Key Words for this report to facilitate electronic search:  
Meter Sampling Program Report for 2015, NW Natural

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**Please file the above reports according to their individual instructions.**

**ZACH PERRYMAN, P.E.**  
Engineering  
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email: zpp@nwnatural.com



February 22, 2016

**VIA ELECTRONIC FILING**

Public Utility Commission of Oregon  
201 High Street SE, Suite 100  
Post Office Box 1088  
Salem, Oregon 97308-1088

Re: RG 41: Meter Sampling Program Report for 2015

At the request of Commission Staff, Northwest Natural Gas Company, dba NW Natural, submits herewith its 2015 Meter Sampling Program Report.

As required by our Meter Testing Standards and Procedures document, the accuracies of all operating families of diaphragm meters with capacities 1000 ft<sup>3</sup>/hr and below have been statistically analyzed for the year 2015. This analysis utilized all relevant meter tests conducted during the five calendar years between January 1, 2010 and December 31, 2015. The results of this analysis are as follows:

- As of December 31, 2015, we had 725,438 installed meters. These meters formed 486 meter families.
- Over the course of 2015, the company tested 5,445 meters. Over the five-year period of 2010 through 2015, the company had a total of 30,289 meter samples from which to base its results.
- 442 meter families either have sufficient meter samples to establish statistical confidence in their accuracy, or are so new that they do not yet require minimum sampling. These meter families amount to 709,076 meters, or 97.7 percent of the total meter population. The performances of these families are exhibited in Appendix A.
- 44 meter families and 4 sub-families from 2 different families, consisting of a total of 4,082 meters, are not conforming and have been put on the list to be removed by the end of 2016, per the Meter Sampling Program (MSP) guidelines. The performances of these families are exhibited in Appendix B.
- 451 out of the 486 meter families had sufficient meter tests available to have their accuracy determined statistically; the remaining 35 families have been removed from service due to their small population size. The performances of these families are exhibited in Appendix B.
- Compared to the results above, our analysis at the beginning of last year resulted in 6,395 meters being put on the list for removal by the end of 2015.

If you have any questions or comments, please contact me at (503) 226-4211 ext. 4383.

Sincerely,

/s/ Zach Perryman

**Zach Perryman, P.E.**  
**Gas Measurement and Technical Support Engineer**

cc: Andy Fortier                      Lori Russell  
Jon Huddleston                      Adam Turco  
Grant Yoshihara  
Steve Nelson

**Appendix A  
Meter Families in Conformance**

<b>Perf</b>	<b>Alt. Perf</b>	<b>Year Set</b>	<b>Manufacturer</b>	<b>Size</b>	<b>Age</b>	<b># Meters in Family</b>	<b>OK Total</b>	<b>Fast Total</b>	<b>Slow Total</b>
120	0	1967	Rockwell	175	48	98	22		
120	0	1968	Rockwell	175	47	101	34	1	
120	0	1969	Rockwell	175	46	239	66	6	
120	0	1970	Rockwell	175	45	660	94	5	2
120	0	1971	Rockwell	175	44	578	50	2	
120	0	1972	Rockwell	175	43	911	64	3	
120	0	1973	Rockwell	175	42	698	59	1	
120	0	1974	Rockwell	175	41	2746	192	15	5
120	0	1975	Rockwell	175	40	1899	125	9	2
120	0	1976	Rockwell	175	39	1168	81		3
120	0	1977	Rockwell	175	38	1411	100	6	1
120	0	1978	Rockwell	175	37	1558	118	4	4
120	0	1979	Rockwell	175	36	1714	96	4	8
120	0	1980	Rockwell	175	35	1091	102	7	3
120	0	1981	Rockwell	175	34	761	103	7	2
120	0	1982	Rockwell	175	33	1271	75	2	3
120	0	1983	Rockwell	175	32	1439	88	3	
120	0	1984	Rockwell	175	31	1545	78	2	2
120	0	1985	Rockwell	175	30	2037	103	4	2
120	0	1986	Rockwell	175	29	1374	72		2
120	0	1987	Rockwell	175	28	2343	133	3	3
120	0	1988	Rockwell	175	27	2282	107	1	1
120	0	1989	Rockwell	175	26	3645	163	3	3
120	0	1990	Rockwell	175	25	3718	175	5	5
120	0	1991	Rockwell	175	24	4030	226	1	7
120	0	1992	Rockwell	175	23	6989	355	2	5
120	0	1993	Rockwell	175	22	2784	132	1	4
120	0	1994	Rockwell	175	21	1440	86		3
120	0	1995	Rockwell	175	20	362	69	3	
120	0	1996	Rockwell	175	19	825	103	4	3
120	0	1997	Rockwell	175	18	204	33		
120	0	1998	Rockwell	175	17	79	22		
120	0	2006	Rockwell	175	9	1	0		
120	0	2008	Rockwell	175	7	3	0		
120	0	2009	Rockwell	175	6	13	3		
120	0	2010	Rockwell	175	5	2	3	3	
120	0	2012	Rockwell	175	3	1	4	4	
120	0	2014	Rockwell	175	1	1	2	2	
125	0	1978	Rockwell	200	37	1664	88	3	
125	0	1979	Rockwell	200	36	190	51	2	
125	0	1980	Rockwell	200	35	1923	72	2	
125	0	1981	Rockwell	200	34	2576	66	2	3
125	0	1982	Rockwell	200	33	3202	133	1	2
125	0	1983	Rockwell	200	32	1853	74		
125	0	1984	Rockwell	200	31	2196	89	1	1
125	0	1985	Rockwell	200	30	1579	102	17	

Perf	Alt. Perf	Year Set	Manufacturer	Size	Age	# Meters in Family	OK Total	Fast Total	Slow Total
125	0	1986	Rockwell	200	29	420	127	2	1
125	0	1987	Rockwell	200	28	577	83	4	2
125	0	1988	Rockwell	200	27	443	61	2	1
125	0	1989	Rockwell	200	26	540	85	2	
125	0	1990	Rockwell	200	25	369	26		1
125	0	1991	Rockwell	200	24	746	33		1
125	0	1992	Rockwell	200	23	656	33		
125	0	1993	Rockwell	200	22	565	29		1
125	0	1994	Rockwell	200	21	476	26		
125	0	1995	Rockwell	200	20	121	28		
125	0	1996	Rockwell	200	19	260	51	1	
125	0	1997	Rockwell	200	18	142	56	1	
125	0	1998	Rockwell	200	17	89	29		
125	0	1999	Rockwell	200	16	159	37		
125	0	2008	Rockwell	200	7	5	0		
125	0	2009	Rockwell	200	6	3	0		
130	0	1971	American	175	44	1117	99	6	2
130	0	1972	American	175	43	2775	103	13	1
130	0	1973	American	175	42	814	55	1	
130	0	1974	American	175	41	5045	166	20	
130	0	1975	American	175	40	38	16		
130	0	1976	American	175	39	1450	94	10	4
130	0	1977	American	175	38	3400	161	12	2
130	0	1978	American	175	37	1627	101	7	
130	0	1979	American	175	36	6591	274	17	6
130	0	1980	American	175	35	6433	269	24	1
130	0	1981	American	175	34	4755	191	27	4
130	0	1982	American	175	33	3777	228	25	5
130	0	1983	American	175	32	3153	139	18	4
130	0	1984	American	175	31	4995	199	15	8
130	0	1985	American	175	30	2162	101	10	2
130	0	1986	American	175	29	4161	161	9	5
130	0	1987	American	175	28	6123	250	22	3
130	0	1988	American	175	27	3280	135	13	3
130	0	1989	American	175	26	3436	180	8	3
130	0	1990	American	175	25	3225	154	17	3
130	0	1991	American	175	24	5063	181	10	3
130	0	1992	American	175	23	1495	115	10	1
130	0	1993	American	175	22	3298	148	10	2
130	0	1994	American	175	21	2726	122	7	1
130	0	1995	American	175	20	570	75	3	2
130	0	1996	American	175	19	1096	43		1
130	0	1997	American	175	18	256	23		
130	0	2006	American	175	9	4	0		
130	0	2007	American	175	8	2	0		
130	0	2008	American	175	7	3	0		
130	0	2009	American	175	6	20	0		
130	0	2013	American	175	2	1	1		
130	0	2014	American	175	1	2	2		

Perf	Alt. Perf	Year Set	Manufacturer	Size	Age	# Meters in Family	OK Total	Fast Total	Slow Total
140	0	1968	Sprague	175	47	1074	89		17
140	0	1970	Sprague	175	45	378	69		9
140	0	1971	Sprague	175	44	1030	67	1	8
140	0	1972	Sprague	175	43	179	54	2	1
140	0	1973	Sprague	175	42	3018	165	5	12
140	0	1974	Sprague	175	41	653	41		
140	0	1975	Sprague	175	40	756	103		9
140	0	1976	Sprague	175	39	1148	82	2	4
140	0	1977	Sprague	175	38	339	32		2
140	0	1978	Sprague	175	37	282	97		9
140	0	1979	Sprague	175	36	169	37		3
140	0	1980	Sprague	175	35	354	49		5
140	0	1981	Sprague	175	34	667	45		
140	0	1982	Sprague	175	33	626	60	1	4
140	0	1983	Sprague	175	32	868	101	3	9
140	0	1984	Sprague	175	31	740	93		5
140	0	1985	Sprague	175	30	1220	78		10
140	0	1986	Sprague	175	29	1005	65	1	7
140	0	1987	Sprague	175	28	3082	185		11
140	0	1988	Sprague	175	27	813	50		5
140	0	1989	Sprague	175	26	793	48		4
140	0	1990	Sprague	175	25	1066	104		10
140	0	1991	Sprague	175	24	478	61		4
140	0	1992	Sprague	175	23	595	42	1	2
140	0	1993	Sprague	175	22	684	50		4
140	0	1994	Sprague	175	21	620	37		2
140	0	1997	Sprague	175	18	485	55	1	4
140	0	1998	Sprague	175	17	18	15		
140	0	2007	Sprague	175	8	1	0		
140	0	2008	Sprague	175	7	2	0		
140	0	2009	Sprague	175	6	2	1		
140	0	2011	Sprague	175	4	1	0		
270	0	1998	Schlumberger	1000	17	33	16		
270	0	2000	Schlumberger	1000	15	32			
270	0	2001	Schlumberger	1000	14	68			
270	0	2002	Schlumberger	1000	13	8			
270	0	2006	Schlumberger	1000	9	1	0		
272	0	2004	Actaris	1000	11	18	35	2	
300	540	1996	Rockwell	800	19	43	18		1
300	540	1997	Rockwell	800	18	20	17		3
300	540	1999	Rockwell	800	16	23	33		5
300	540	2002	Rockwell	800	13	7	8		
300	540	2005	Rockwell	800	10	12	12		
450	0	1993	Schlumberger	400	22	219	37		
450	0	1996	Schlumberger	400	19	308	48		1
450	0	1997	Schlumberger	400	18	72	21		1
450	0	1998	Schlumberger	400	17	488	62		
450	0	1999	Schlumberger	400	16	115	25		
450	0	2003	Schlumberger	400	12	30	20		

Perf	Alt. Perf	Year Set	Manufacturer	Size	Age	# Meters in Family	OK Total	Fast Total	Slow Total
450	0	2004	Schlumberger	400	11	9	11		
450	0	2005	Schlumberger	400	10	8	8		
450	0	2006	Schlumberger	400	9	1	0		
450	0	2009	Schlumberger	400	6	1	0		
450	0	2013	Schlumberger	400	2	1	1		
452	0	2003	Actaris	400	12	122	22		2
452	0	2004	Actaris	400	11	493	51		2
452	0	2005	Actaris	400	10	16	15		
452	0	2006	Actaris	400	9	4	0		
452	0	2008	Actaris	400	7	1	0		
470	472	1973	American	425	42	11	13		
470	472	1982	American	425	33	29	26	1	
470	472	1983	American	425	32	34	28	1	1
470	472	1984	American	425	31	128	24		
470	472	1985	American	425	30	50	18		
470	472	1986	American	425	29	74	31	1	
470	472	1987	American	425	28	179	44	1	
470	472	1988	American	425	27	79	22		
470	472	1989	American	425	26	44	19		
470	472	1990	American	425	25	41	38	2	1
470	472	1991	American	425	24	40	36	2	
470	472	1992	American	425	23	169	44	1	1
470	472	1993	American	425	22	105	26		
470	472	1994	American	425	21	257	65	3	
470	472	1995	American	425	20	100	24		
470	472	1996	American	425	19	24	16		
470	472	1997	American	425	18	365	65	2	
470	472	1998	American	425	17	200	72	4	
470	472	1999	American	425	16	277	61	2	
470	472	2000	American	425	15	438	80	3	
470	472	2001	American	425	14	99	22		
470	472	2002	American	425	13	473	46		
470	472	2003	American	425	12	222	73	4	
470	472	2004	American	425	11	92	24		
470	472	2005	American	425	10	26	16		
470	472	2006	American	425	9	70	8	1	
470	472	2007	American	425	8	258	22		3
470	472	2008	American	425	7	23	0		
470	472	2009	American	425	6	5	0		
470	472	2010	American	425	5	2	0		
470	472	2012	American	425	3	2	1		
471	0	2005	American	425	10	1023	93	18	
471	0	2006	American	425	9	757	52	8	
471	0	2007	American	425	8	567	43	1	1
471	0	2008	American	425	7	78	3		
471	0	2009	American	425	6	4	0		
471	0	2010	American	425	5	108	4	1	
471	0	2011	American	425	4	117	10	1	
471	0	2012	American	425	3	9	0		

Perf	Alt. Perf	Year Set	Manufacturer	Size	Age	# Meters in Family	OK Total	Fast Total	Slow Total
475	0	2006	American	630	9	661	38	4	
475	0	2007	American	630	8	674	27	2	
475	0	2008	American	630	7	1134	60	10	
475	0	2010	American	630	5	702	33		1
475	0	2011	American	630	4	1101	39		
475	0	2012	American	630	3	1517	44		
475	0	2013	American	630	2	1596	45		
475	0	2014	American	630	1	1623	38	1	
475	0	2015	American	630	0	173	21		
480	486	1989	American	800	26	38	31	2	3
480	486	1990	American	800	25	34	24		
480	486	1991	American	800	24	77	50	3	
480	486	1992	American	800	23	38	34	2	2
480	486	1993	American	800	22	61	36	2	1
480	486	1995	American	800	20	31	20		2
480	486	1996	American	800	19	11	11	1	
480	486	2000	American	800	15	58	38	2	3
480	486	2001	American	800	14	27	21	1	1
480	486	2002	American	800	13	34	17		
480	486	2006	American	800	9	3	0		
480	486	2007	American	800	8	1	0		
485	0	1978	American	800	37	10	10		
485	0	1981	American	800	34	40	31	2	1
485	0	1982	American	800	33	69	47	5	
485	0	1983	American	800	32	67	46	6	
485	0	1984	American	800	31	87	71	2	5
485	0	1987	American	800	28	32	37	2	2
485	0	1995	American	800	20	19	19	1	
485	0	1996	American	800	19	10	16		
485	0	1997	American	800	18	11	10		
485	0	2011	American	800	4	1	0		
490	0	2007	Sprague	305	8	1	0		
500	502	1990	American	1000	25	7	8	1	
500	502	1992	American	1000	23	7	7		
500	502	1993	American	1000	22	11	12		1
500	502	1998	American	1000	17	99	49	7	
500	502	1999	American	1000	16	40	29	1	
500	502	2000	American	1000	15	50	20		
500	502	2001	American	1000	14	24	14		
500	502	2002	American	1000	13	64	21		
500	502	2003	American	1000	12	27	23		
500	502	2005	American	1000	10	8	8	1	
505	507	1980	American	1000	35	14	11		1
505	507	1981	American	1000	34	18	12		1
505	507	1982	American	1000	33	10	11	1	1
505	507	2006	American	1000	9	628	107	11	
505	507	2007	American	1000	8	448	58	2	
505	507	2008	American	1000	7	392	33	3	
505	507	2009	American	1000	6	326	22	1	

Perf	Alt. Perf	Year Set	Manufacturer	Size	Age	# Meters in Family	OK Total	Fast Total	Slow Total
505	507	2010	American	1000	5	214	11	3	
505	507	2011	American	1000	4	415	49	1	
505	507	2012	American	1000	3	439	36	2	
505	507	2013	American	1000	2	414	21		
505	507	2014	American	1000	1	476	17		
505	507	2015	American	1000	0	73	6		
510	515	1973	Rockwell	310	42	103	58	3	6
510	515	1974	Rockwell	310	41	56	35	1	5
510	515	1975	Rockwell	310	40	47	34	3	2
510	515	1976	Rockwell	310	39	320	59	1	2
510	515	1977	Rockwell	310	38	177	48		3
510	515	1978	Rockwell	310	37	151	44	1	2
510	515	1979	Rockwell	310	36	186	67	4	3
510	515	1980	Rockwell	310	35	158	31	2	2
510	515	1981	Rockwell	310	34	216	65	6	3
510	515	1982	Rockwell	310	33	96	42	1	3
510	515	1983	Rockwell	310	32	151	62	4	6
510	515	1984	Rockwell	310	31	33	22		1
510	515	1986	Rockwell	310	29	26	28	1	1
510	515	1987	Rockwell	310	28	273	38		4
510	515	1988	Rockwell	310	27	149	60	1	3
510	515	1989	Rockwell	310	26	119	58	5	3
510	515	1990	Rockwell	310	25	288	73	7	7
510	515	1991	Rockwell	310	24	235	29		2
510	515	1992	Rockwell	310	23	162	67	4	1
510	515	1993	Rockwell	310	22	115	58	5	
510	515	1994	Rockwell	310	21	46	40		4
510	515	1995	Rockwell	310	20	62	32	1	2
510	515	1996	Rockwell	310	19	43	44	2	2
510	515	1997	Rockwell	310	18	11	12		
510	515	2008	Rockwell	310	7	1	0		
510	515	2009	Rockwell	310	6	1	0		
510	515	2010	Rockwell	310	5	1	0		
510	515	2011	Rockwell	310	4	1	2		
510	515	2013	Rockwell	310	2	1	2		
510	515	2014	Rockwell	310	1	1	0		
520	0	1976	Rockwell	415	39	83	22		1
520	0	1977	Rockwell	415	38	54	19		1
520	0	1979	Rockwell	415	36	104	29		1
520	0	1980	Rockwell	415	35	90	55	3	
520	0	1981	Rockwell	415	34	245	50		5
520	0	1982	Rockwell	415	33	49	38	3	3
520	0	1983	Rockwell	415	32	23	22		1
520	0	1984	Rockwell	415	31	18	22	1	
520	0	1986	Rockwell	415	29	7	6		
520	0	1987	Rockwell	415	28	63	22	1	1
520	0	1988	Rockwell	415	27	59	20		
520	0	1991	Rockwell	415	24	90	48	2	
520	0	1992	Rockwell	415	23	82	23		



Perf	Alt. Perf	Year Set	Manufacturer	Size	Age	# Meters in Family	OK Total	Fast Total	Slow Total
520	0	1993	Rockwell	415	22	42	17		1
520	0	1994	Rockwell	415	21	105	24		1
520	0	1995	Rockwell	415	20	333	79	6	3
520	0	1996	Rockwell	415	19	153	56	2	
520	0	1997	Rockwell	415	18	64	60	4	
520	0	1999	Rockwell	415	16	362	76	10	
520	0	2000	Rockwell	415	15	141	37	1	
520	0	2001	Rockwell	415	14	412	75	13	
520	0	2002	Rockwell	415	13	101	20		
520	0	2003	Rockwell	415	12	169	82	2	
520	0	2004	Rockwell	415	11	111	26		
520	0	2005	Rockwell	415	10	55	21		
520	0	2006	Rockwell	415	9	1	2		
520	0	2007	Rockwell	415	8	1	1		
520	0	2009	Rockwell	415	6	3	0		
520	0	2011	Rockwell	415	4	1	1		
555	0	1980	American	310	35	99	22		
555	0	1981	American	310	34	49	17		
555	0	1982	American	310	33	145	23		1
555	0	1983	American	310	32	123	22		
555	0	1984	American	310	31	232	47		
555	0	1985	American	310	30	138	35		
555	0	1986	American	310	29	89	40	1	
555	0	1987	American	310	28	73	34	1	
555	0	1988	American	310	27	9	16		
555	0	1989	American	310	26	16	31	2	
555	0	1990	American	310	25	29	16		
555	0	1991	American	310	24	26	24	2	
555	0	1994	American	310	21	13	16	1	
555	0	1995	American	310	20	13	9		
555	0	1997	American	310	18	45	19		1
555	0	2008	American	310	7	1	0		
555	0	2009	American	310	6	1	0		
555	0	2012	American	310	3	1	1		
560	0	1985	American	250	30	1513	49	1	1
560	0	1986	American	250	29	6445	193	6	
560	0	1987	American	250	28	458	65	2	
560	0	1988	American	250	27	3254	93		2
560	0	1989	American	250	26	7254	236	1	5
560	0	1990	American	250	25	6550	221	1	8
560	0	1991	American	250	24	5798	185	4	4
560	0	1992	American	250	23	4916	154		5
560	0	1993	American	250	22	4196	111	2	2
560	0	1994	American	250	21	6287	151	1	2
560	0	1995	American	250	20	8409	221	7	1
560	0	1996	American	250	19	11356	265	7	3
560	0	1997	American	250	18	15402	347	26	
560	0	1998	American	250	17	14744	321	12	1
560	0	1999	American	250	16	11431	208	4	1

Perf	Alt. Perf	Year Set	Manufacturer	Size	Age	# Meters in Family	OK Total	Fast Total	Slow Total
560	0	2000	American	250	15	11460	232	4	
560	0	2001	American	250	14	9595	163	2	
560	0	2002	American	250	13	8620	142	1	
560	0	2003	American	250	12	2913	103	11	1
560	0	2005	American	250	10	78	32	1	1
560	0	2006	American	250	9	675	21		
560	0	2007	American	250	8	220	12		
560	0	2008	American	250	7	6	0		
560	0	2010	American	250	5	2	0		
560	0	2011	American	250	4	2	4		
560	0	2012	American	250	3	6	5		
560	0	2013	American	250	2	4	3		
560	0	2014	American	250	1	4	5		
561	0	2006	American	250	9	21894	414	4	
561	0	2007	American	250	8	22437	462	21	
561	0	2008	American	250	7	23482	509	21	
561	0	2009	American	250	6	14573	282	14	
561	0	2010	American	250	5	10334	212		
561	0	2011	American	250	4	10862	184		
561	0	2012	American	250	3	12162	204		1
561	0	2013	American	250	2	15587	190	3	
561	0	2014	American	250	1	14920	97	1	
561	0	2015	American	250	0	2472	52	2	
570	0	1988	Rockwell	275	27	550	28		1
570	0	1989	Rockwell	275	26	795	52		1
570	0	1990	Rockwell	275	25	5519	131	6	
570	0	1991	Rockwell	275	24	2982	78	1	
570	0	1992	Rockwell	275	23	188	27		
570	0	1993	Rockwell	275	22	95	25		1
570	0	1994	Rockwell	275	21	5174	115		2
570	0	1995	Rockwell	275	20	6617	125		2
570	0	1996	Rockwell	275	19	7830	156	1	2
570	0	1997	Rockwell	275	18	2407	45		1
570	0	1998	Rockwell	275	17	5547	101	1	2
570	0	1999	Rockwell	275	16	10736	226	9	2
570	0	2000	Rockwell	275	15	8624	131	8	2
570	0	2001	Rockwell	275	14	8832	128	1	1
570	0	2002	Rockwell	275	13	10999	180		2
570	0	2003	Rockwell	275	12	20126	306	3	
570	0	2004	Rockwell	275	11	3658	71		2
570	0	2005	Rockwell	275	10	13	11		
570	0	2006	Rockwell	275	9	8	1		
570	0	2007	Rockwell	275	8	7	0		
570	0	2008	Rockwell	275	7	6	1		
570	0	2009	Rockwell	275	6	17	0		
570	0	2010	Rockwell	275	5	2	3		
570	0	2011	Rockwell	275	4	1	2		
570	0	2012	Rockwell	275	3	4	3		

Perf	Alt. Perf	Year Set	Manufacturer	Size	Age	# Meters in Family	OK Total	Fast Total	Slow Total
570	0	2013	Rockwell	275	2	1	3		
570	0	2014	Rockwell	275	1	2	3		
572	0	2004	Invensys	275	11	14150	239	3	
572	0	2005	Invensys	275	10	25137	423	17	2
572	0	2006	Invensys	275	9	8293	159	8	1
572	0	2007	Invensys	275	8	24			
572	0	2008	Invensys	275	7	79	1		
572	0	2009	Invensys	275	6	794	53		
572	0	2010	Invensys	275	5	17	3		
572	0	2011	Invensys	275	4	90	7		
572	0	2012	Invensys	275	3	4	1		
572	0	2013	Invensys	275	2	1	1		
580	0	2007	Sprague	175	8	1	0		
585	0	1988	Sprague	250	27	197	23		
585	0	1991	Sprague	250	24	764	35		
585	0	1992	Sprague	250	23	2163	98		
585	0	1993	Sprague	250	22	3944	149		
585	0	1994	Sprague	250	21	1700	69	1	
585	0	1995	Sprague	250	20	1554	65		
585	0	1996	Sprague	250	19	4531	114		2
585	0	1997	Sprague	250	18	6047	156		3
585	0	1998	Sprague	250	17	5544	136		
585	0	1999	Sprague	250	16	267	27		
585	0	2000	Sprague	250	15	67	22		
585	0	2001	Sprague	250	14	66	30		
585	0	2002	Sprague	250	13	60	78	2	
585	0	2003	Sprague	250	12	14	19		
585	0	2004	Sprague	250	11	64	29		
585	0	2006	Sprague	250	9	2	0		
585	0	2009	Sprague	250	6	5	0		
585	0	2014	Sprague	250	1	2	0		
590	0	1988	Lancaster	250	27	92	25		
590	0	1989	Lancaster	250	26	1381	77		1
590	0	1990	Lancaster	250	25	1376	91	2	1
590	0	1991	Lancaster	250	24	1792	112	1	4
590	0	1992	Lancaster	250	23	2750	135		1
590	0	1993	Lancaster	250	22	2909	101	2	
590	0	1994	Lancaster	250	21	4579	196	4	8
590	0	1995	Lancaster	250	20	5034	171	4	11
590	0	1996	Lancaster	250	19	47	23		
590	0	1997	Lancaster	250	18	2175	63		
590	0	1998	Lancaster	250	17	29	15		
590	0	1999	Lancaster	250	16	166	30		
590	0	2006	Lancaster	250	9	2	0		
590	0	2008	Lancaster	250	7	1	1		
590	0	2009	Lancaster	250	6	3	1		
590	0	2010	Lancaster	250	5	1	0		
595	600	2000	Schlumberger	250	15	3547	517	20	6
595	600	2001	Schlumberger	250	14	3954	428	3	4

<b>Perf</b>	<b>Alt. Perf</b>	<b>Year Set</b>	<b>Manufacturer</b>	<b>Size</b>	<b>Age</b>	<b># Meters in Family</b>	<b>OK Total</b>	<b>Fast Total</b>	<b>Slow Total</b>
595	600	2002	Schlumberger	250	13	3444	344	1	13
595	600	2003	Schlumberger	250	12	72	21		1
595	600	2004	Schlumberger	250	11	35	17		
595	600	2008	Schlumberger	250	7	1	0		
595	600	2012	Schlumberger	250	3	1	3		
<b>Total</b>						<b>709,076</b>	<b>28,449</b>	<b>989</b>	<b>563</b>

**Appendix B  
Meter Families Not Conforming (To Be Removed)**

<b>Perf</b>	<b>Alt. Perf</b>	<b>Year Set</b>	<b>Manufacturer</b>	<b>Size</b>	<b>Age</b>	<b># Meters in Family or Subfamily</b>	<b>Subfamily</b>
125	0	2003	Rockwell	200	11	1	
130	0	1983	American	175	30	331	Meter #'s 247462 - 259203
300	540	2000	Rockwell	800	14	40	
300	540	2004	Rockwell	800	10	7	
480	486	1973	American	800	41	6	
480	486	1997	American	800	17	12	
480	486	2003	American	800	11	14	
480	486	2004	American	800	10	15	
500	502	1997	American	1000	17	20	
505	507	1996	American	1000	17	1	
505	507	2002	American	1000	11	4	
560	0	2003	American	250	11	320	Meter #'s 871817 - 872646
560	0	2004	American	250	10	1218	
561	0	2004	American	250	10	2804	
570	0	1984	Rockwell	275	30	1	
570	0	1984	Rockwell	275	30	1	
595	600	1999	Schlumberger	250	15	1600	
			<b>Total</b>			<b>6395</b>	