JEANNE P. ATKINS
SECRETARY OF STATE





JIM WILLIAMS

DIRECTOR

255 CAPITOL STREET NE, SUITE 501 SALEM, OREGON 97310-0722

ELECTIONS --- (503) 986-1518

September 11, 2015

Pamela Duffy

Via Electronic Mail: pamerdan@aol.com

Dear Ms. Duffy:

You submitted a petition to recall Senator Prozanski from elected office. This letter is to notify you of our official findings regarding the validity of that petition.

After processing the petition and verifying signatures, we have determined that the petition did not contain a sufficient number of valid signatures from electors in Senate District 4 to warrant a special recall election. After verification, the petition contained a total of 8,208 valid signatures, which is less than the 8,415 required.

Attached to this letter is a copy of the statistical report regarding the petition. It includes details about the number of total signatures required and received as well as the number of signatures accepted and rejected. It provides a summary of the information that we used to determine whether a special election should be ordered.

Because the petition did not include a sufficient number of valid signatures to order a special recall election, this recall process is now officially closed.

Please contact me if you have any questions.

Sincerely.

Jim Williams

**Elections Director** 

c: Senator Floyd Prozanski

Kristian Roggendorf

Via Electronic Mail: kr@roggendorf-law.com

Leonard R. Morse

Via Electronic Mail: oregon-bound@prodiay.net

## **Submission F**

Required number   R	2	R-2015-7				
Stage 1: Verify First Sample from Submission F		D 1 1 1		2 242		
6 Date         Date prighton         Notation         Number         % Sub F           7 Description         NF         10,027         100.00%           8 Submission F size         NF         10,027         100.00%           9 Sample F1         10         3 sample size         NF1         1,003         10.00%           11 # valid signatures         yF1         855         855           12 Electors with multiple signatures         FF1         2         1           14 # pipirs         FF1         2         2           15 Equations         FFF1         2         2           16 Equations         Expansion factor         FF1 = YF1/NF1         0.8524         1           18 Expansion factor         FF1 = NF/NF1         9.9970         1           19 # valid signatures         YF1 = FF1*YF1         8,547.44         85.24%           20 # multiple signatures         DF1 = FF1*YF1 + DF1         8,347.56         83.25%           21 # valid signatures in Sample F1         MF1 = YF1 - DF1         8,347.56         83.25%           22 Margin of Error         285.22         2.84%           23 Mole = 1.645* sqrt{[NF(NF - NF1)/NF1]* [\$\frac{1}{1} \cdot \bar{2} \cdot \ba		·		8,415		
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Sample F1	7			······		
10 Sample size			NF	10,027	100.00%	
11    # valid signatures		•	<b>A</b>	4 000	40.000/	
		•		<u> </u>	10.00%	
#pairs	11	· ·	<b>y</b> F1	855		
#triplicates   FFF1	12	· · · · · · · · · · · · · · · · · · ·				
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17         Proportion valid         ÿF₁ = yF₁/NF₁         0.8524           18         Expansion factor         FF₁ = NF/NF₁         9.9970           19         # valid signatures         YF₁ = FF₁*YF₁*YF₁         8,547.44         85.24%           20         # multiple signatures         DF₁ = FF₁*FF₁*(P2 + P3) + FF₁*PG3         19.988         1.99%           21         # valid signatures in Sample F1         MF₁ = YF₁ - DF₁         8,347.56         8.325%           22         Margin of Error         285.22         2.84%           23         MOE = 1.645*sqrt{[NF(NF - NF₁)/NF₁]*[ÿF₁*(1 - ÿF₁) + DF₁(1/NF₁ + (-3 + 4*ÿF₁)/NF⟩)         285.22         2.84%           25         Lower confidence limit for M         ML = MF₁ - MOE         8,062.34         80.41%           26         Is ML >= required number:         8,415         No         -352.66           28         Stage 2: Verify Second Sample from Submission F         Sample F2         1,004         10.01%           31         # valid signatures         yF₂         828         10.01%         10.01%         10.01%           31         # pairs         FF₂         FF₂         6         6         10.01%         10.01%         10.01%         10.01%         10.01%         10.01%         10	14	#triplicates	FFF1			
18	16	·	_ ,			
19  # valid signatures	17	· ·				
20       # multiple signatures       DF1 = FF1*FF1*(e2 + e3) + FF1*e3       199.88       1.99%         21       # valid signatures in Sample F1       MF1 = YF1 - DF1       8,347.56       83.25%         22       Margin of Error       285.22       2.84%         23       MOE = 1.645*sqrt{[NF(NF - NF1)/NF1]*[VF1*(1 - VF1) + DF1{1/NF1 + (-3 + 4*VF1)/NF)}}       285.22       2.84%         25       Lower confidence limit for M       ML = MF1 - MOE       8,062.34       80.41%         26       Is ML >= required number:       8,415       No       -352.66         28       Stage 2: Verify Second Sample from Submission F       Sample F2       1,004       10.01%         29       Sample size       NF2       1,004       10.01%         31       # valid signatures       YF2       828         32       Electors with multiple signatures       FFF2       6         34       #triplicates       FFFP2       2,007       20.02%         35       Sample F (combined sample)       FF = NF1 + FF2       8       8         36       Sample size       NF = NF1 + NF2       2,007       20.02%         37       # valid signatures       YF = YF1 + YF2       8       8         38       # Electors w	18	•	•			
21       # valid signatures in Sample F1       MF1 = YF1 - DF1       8,347.56       83.25%         22       Margin of Error       285.22       2.84%         23       MOE = 1.645*sqrt{[NF(NF - NF1)/NF1]*[ЎF1*{1 - ЎF1} + DF1{1/NF1 + (-3 + 4*ЎF1)/NF}}       8.062.34       80.41%         25       Lower confidence limit for M       ML = MF1 - MOE       8,062.34       80.41%         26       Is ML >= required number:       8,415       No       -352.66         28       Stage 2: Verify Second Sample from Submission F       Sample F2         30       Sample size       NF2       1,004       10.01%         31       # valid signatures       YF2       828         32       Electors with multiple signatures       FFF2       6         34       # triplicates       FFF5       0         35       Sample F (combined sample)       Sample F (combined sample)       2,007       20.02%         36       # valid signatures       YF = YF1 + YF2       1,683       4         37       # valid signatures       YF = YF1 + FF5       8       8         38       Electors with multiple signatures       PF = NF/NF       4.9960       4         40       #triplicates       PF = NF/NF       4.9960	19	# valid signatures	•	8,547.44	85.24%	
22 Margin of Error 285.22 2.84%  23 MOE = 1.645*sqrt{[NF(NF - NF1)/NF1]*[ŸF1*(1 - ŸF1) + DF1(1/NF1 + (-3 + 4*ŸF1)/NF)}  25 Lower confidence limit for M ML = MF1 - MOE 8,062;34 80.41%  26 Is ML >= required number: 8,415 No -352.66  28 Stage 2: Verify Second Sample from Submission F  29 Sample F2  30 Sample size NF2 1,004 10.01%  31 # valid signatures YF2 828  32 Electors with multiple signatures  33 #pairs FF2 6  4 #triplicates FFF2  35 Sample F (combined sample)  36 Sample size NF = NF1 + NF2 2,007 20.02%  37 # valid signatures. YF = YF1 + YF2 1,683  38 Electors with multiple signatures  39 #pairs PF1 + FF1 + FF1 8 8  40 #triplicates PFF1 + FFF2 8  40 #triplicates PFF1 + FFF2 8  40 #triplicates PFF1 + FFF2 8  41 #valid signatures PF = NF1 + FF5 8  42 Equations  43 Expansion factor FF = NF/NF 4.9960  44 # valid signatures YF = FF*YF 8,408.29 83.86%  45 # multiple signatures DF = FF*F*(PF2 + PF3) + FF*PF3 199.68 1.99%  46 # electors signing Submission F MF = YF - DF 8,208.61 81.87%	20	# multiple signatures	$D_{F1} = F_{F1} * F_{F1} * (e_2 + e_3) + F_{F1} * e_3$	199.88	1.99%	
23  MOE = 1.645*sqrt{{Nr{Nr}- Nr1}/Nr1}*{\vec{V}r1} + \vec{V}r1 + \vec{V}r1 + \vec{V}r1} + \vec{V}r1}/Nr1 + \vec{V}r1/Nr1 + \vec{V}r1}/Nr1 + \vec{V}r1/Nr1 + \vec{V}r1}/Nr1 + \vec{V}r1/Nr1 + \vec{V}r1/Nr1 + \vec{V}r1}/Nr1 + \vec{V}r1/Nr1 + \vec{V}r1/Nr1 + \vec{V}r1}/Nr1 + \vec{V}r1/Nr1 + \vec{V}r1/Nr	21	# valid signatures in Sample F1	Mf1 = Yf1 - Df1	8,347.56	83.25%	
25         Lower confidence limit for M         ML = MF1 - MOE         8,062;34         80.41%           26         Is ML >= required number:         8,415         No         -352.66           28         Stage 2: Verify Second Sample from Submission F           29         Sample F2         1,004         10.01%           30         Sample size         NF2         1,004         10.01%           31         # valid signatures         YF2         828           32         Electors with multiple signatures         FF2         6           34         # triplicates         FFF2         6           34         # triplicates         FFF2         6           35         Sample F (combined sample)         3         Sample size         NF = NF1 + NF2         2,007         20.02%           37         # valid signatures         YF = YF1 + YF2         1,683         3           38         Electors with multiple signatures         EF2 = FF1 + FF2         8         4           40         #triplicates         EF3 = FFF1 + FFF2         8         4           40         #triplicates         EF = NF/NF         4.9960         4           42         Equations         F = F*YF	22				2.84%	
26       Is ML >= required number:       8,415       No       -352.66         28       Stage 2: Verify Second Sample from Submission F         29       Sample F2         30       Sample size       NF2       1,004       10.01%         31       # valid signatures       yF2       828         32       Electors with multiple signatures       FF2       6         34       # triplicates       FFF2       6         34       # triplicates       FFF2       6         35       Sample F (combined sample)       3       5         36       Sample size       NF = NF1 + NF2       2,007       20.02%         37       # valid signatures       YF = YF + YF2       1,683       3         38       Electors with multiple signatures       6       4 = FF + F	23	$MOE = 1.645*sqrt\{[N_{F}(N_{F} - N_{F1})/N_{F1}]*[\bar{y}_{F1}*(1 - \bar{y}_{F1}) + D_{F1}(1/N_{F1} + (-3 + 4*\bar{y}_{F1})/N_{F})\}$				
Stage 2: Verify Second Sample from Submission F           29 Sample F2         30 Sample size         nF2         1,004         10.01%           31 # valid signatures         yF2         828           32 Electors with multiple signatures         828           33 #pairs         FF2         6           34 #triplicates         FFF2         6           35 Sample F (combined sample)         8           36 Sample size         nF = nF1 + nF2         2,007         20.02%           37 # valid signatures         yF = yF1 + yF2         1,683           38 Electors with multiple signatures         9         #pairs         eF2 = FF1 + FF2         8           40 #triplicates         eF3 = FFF1 + FFF2         8         4           42 Equations         Expansion factor         FF = NF/nF         4.9960           44 #valid signatures         YF = FF*YF         8,408.29         83.86%           45 # multiple signatures         DF = FF*FF*(eF2 + eF3) + FF*eF3         199.68         1.99%           46 # electors signing Submission F         MF = YF - DF         8,208.61         81.87%	25	Lower confidence limit for M	ML = MF1 - MOE	8,062.34	80.41%	
29 Sample F2         30 Sample size       NF2       1,004       10.01%         31 # valid signatures       YF2       828         32 Electors with multiple signatures       828         33 #pairs       FFF2       6         34 #triplicates       FFF2       6         35 Sample F (combined sample)       5         36 Sample size       NF = NF1 + NF2       2,007       20.02%         37 # valid signatures       YF = YF1 + YF2       1,683         38 Electors with multiple signatures       9 #pairs       6F2 = FF1 + FF2       8         40 #triplicates       6F3 = FFF1 + FFF2       8         40 #triplicates       6F3 = FFF1 + FFF2       0         42 Equations       42 Equations         43 Expansion factor       FF = NF/NF       4.9960         44 # valid signatures       YF = FF*YF       8,408.29       83.86%         45 # multiple signatures       DF = FF*FF*(6F2 + 6F3) + FF*6F3       199.68       1.99%         46 # electors signing Submission F       MF = YF - DF       8,208.61       81.87%	26	Is ML >= required number:	8,415	No	-352.66	
30       Sample size       NF2       1,004       10.01%         31       # valid signatures       YF2       828         32       Electors with multiple signatures       FF2       6         33       # pairs       FFF2       6         34       # triplicates       FFF2       6         35       Sample F (combined sample)       36       Sample size       NF = NF1 + NF2       2,007       20.02%         37       # valid signatures       YF = YF1 + YF2       1,683       3         38       Electors with multiple signatures       8       46       46       46       46       46       46       46       46       47       40       47       40       47       40       47       40       47       40       47       40       47       40       47       40       47       40	28	Stage 2: Verify Second Sample from S	ubmission F			
# valid signatures	29	Sample F2				
Electors with multiple signatures   FF2	30	Sample size	NF2	1,004	10.01%	
### ##################################	31	# valid signatures	<b>y</b> F2	828		
#triplicates FFF2    Sample F (combined sample)	32	Electors with multiple signatures				
Sample F (combined sample)         36 Sample size $n_F = n_{F1} + n_{F2}$ 2,007       20.02%         37 # valid signatures. $y_F = y_{F1} + y_{F2}$ 1,683         38 Electors with multiple signatures $y_F = y_{F1} + y_{F2}$ 8         40 #triplicates $y_F = y_{F1} + y_{F2}$ 8         40 #triplicates $y_F = y_{F1} + y_{F2}$ 0         42 Equations $y_F = y_{F1} + y_{F2}$ 4.9960         44 # valid signatures $y_F = y_{F2} + y_{F3}$ 8,408.29       83.86%         45 # multiple signatures $y_F = y_{F2} + y_{F3} + y_{F4}$ 199.68       1.99%         46 # electors signing Submission F $y_F = y_{F2} - y_{F3} + y_{F4}$ 8,208,61       81.87%	33	#pairs	FF <sub>2</sub>	6		
36       Sample size $n_F = n_{F1} + n_{F2}$ 2,007       20.02%         37       # valid signatures $y_F = y_{F1} + y_{F2}$ 1,683         38       Electors with multiple signatures       8         39       # pairs $e_{F2} = FF1 + FF2$ 8         40       # triplicates $e_{F3} = FFF1 + FFF2$ 0         42       Equations         43       Expansion factor $F_F = N_F/n_F$ 4.9960         44       # valid signatures $Y_F = F_F * y_F$ 8,408.29       83.86%         45       # multiple signatures $D_F = F_F * F_F * (e_{F2} + e_{F3}) + F_F * e_{F3}$ 199.68       1.99%         46       # electors signing Submission F $M_F = Y_F - D_F$ 8;208;61       81.87%	34	#triplicates	FFF2			
37       # valid signatures $y_F = y_{F1} + y_{F2}$ 1,683         38       Electors with multiple signatures       8         39       #pairs $e_{F2} = FF1 + FF2$ 8         40       #triplicates $e_{F3} = FFF1 + FFF2$ 0         42       Equations         43       Expansion factor $F_F = N_F/n_F$ 4.9960         44       # valid signatures $Y_F = F_F * y_F$ 8,408.29       83.86%         45       # multiple signatures $D_F = F_F * F_F * (e_{F2} + e_{F3}) + F_F * e_{F3}$ 199.68       1.99%         46       # electors signing Submission F $M_F = Y_F - D_F$ 8,208.61       81.87%	35	Sample F (combined sample)				
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39       #pairs $e_{F2} = FF_1 + FF_2$ 8         40       #triplicates $e_{F3} = FFF_1 + FFF_2$ 0         42       Equations         43       Expansion factor $F_F = N_F/n_F$ 4.9960         44       # valid signatures $Y_F = F_F * Y_F$ 8,408.29       83.86%         45       # multiple signatures $D_F = F_F * F_F * (e_{F2} + e_{F3}) + F_F * e_{F3}$ 199.68       1.99%         46       # electors signing Submission F $M_F = Y_F - D_F$ 8,208;61       81.87%	37	# valid signatures.	$y_F = y_{F1} + y_{F2}$	1,683		
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42       Equations         43       Expansion factor $F_F = N_F/n_F$ 4.9960         44       # valid signatures $Y_F = F_F * Y_F$ 8,408.29       83.86%         45       # multiple signatures $D_F = F_F * F_F * (e_{F2} + e_{F3}) + F_F * e_{F3}$ 199.68       1.99%         46       # electors signing Submission F $M_F = Y_F - D_F$ 8,208;61       81.87%	39	#pairs	$e_{F2} = FF_1 + FF_2$	8		
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43       Expansion factor $F_F = N_F/n_F$ 4.9960         44       # valid signatures $Y_F = F_F * Y_F$ 8,408.29       83.86%         45       # multiple signatures $D_F = F_F * F_F * (e_{F2} + e_{F3}) + F_F * e_{F3}$ 199.68       1.99%         46       # electors signing Submission F $M_F = Y_F - D_F$ 8,208.61       81.87%	42	Equations				
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45       # multiple signatures $DF = FF*FF*(eF2 + eF3) + FF*eF3$ 199.68       1.99%         46       # electors signing Submission F $MF = YF - DF$ 8,208.61       81.87%	44	•	$Y_F = F_F * Y_F$	8,408.29	83.86%	
46 # electors signing Submission F MF = YF - DF <b>8,208.61</b> 81.87%	45		$D_F = F_F * F_F * (e_{F2} + e_{F3}) + F_F * e_{F3}$		1.99%	
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