

1 **Q. Project C-37: Perform Wood Pole Line Management Project**

2 With reference to the “Justification” for the 2015 Wood Pole Management project
3 set out on page 5 of the Tab 15 report, and Hydro’s statement that “Full scale tests
4 of poles at Memorial University since 1999 indicate a 25% reduction of average pole
5 strength over a 35-year period”, please provide (a) the number of poles subjected
6 to full scale tests, (b) the specific percentage reduction for each pole tested, (c)
7 correlation between (b) and the age of that pole, and (d) correlation between (b)
8 and (c) and the line/geographical region in which the pole was located.

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11 **A. Perform Wood Pole Line Management Project**

12 a) According to records, 122 wooden transmission poles have been subjected to
13 full scale tests.

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15 b) The table below shows the specific percentage reduction in fibre strength for
16 each pole (relative to ANSI standard average fibre strength for a new pole),
17 along with the pole’s age and geographical region of the island in which the pole
18 was located.

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Pole	Region	Age	% Reduction
1	Avalon	7	24
2	Avalon	12	36
3	Avalon	12	24
4	Avalon	13	16
5	Avalon	13	39
6	Avalon	13	57
7	Avalon	14	33
8	Avalon	18	35
9	Avalon	19	46

10	Avalon	19	42
11	Avalon	20	54
12	Avalon	20	68
13	Avalon	20	43
14	Avalon	20	41
15	Avalon	20	36
16	Avalon	20	73
17	Avalon	21	9
18	Avalon	22	63
19	Avalon	34	24
20	Avalon	34	20
21	Avalon	34	2
22	Avalon	34	12
23	Avalon	34	39
24	Avalon	34	28
25	Avalon	34	0
26	Avalon	34	55
27	Avalon	34	0
28	Avalon	34	35
29	Avalon	34	19
30	Avalon	34	0
31	Avalon	34	8
32	Avalon	34	11
33	Avalon	34	8
34	Avalon	34	41
35	Avalon	34	39
36	Avalon	34	56
37	Avalon	34	44
38	Avalon	34	38
39	Avalon	34	10
40	Avalon	34	11
41	Avalon	34	77
42	Avalon	34	21
43	Avalon	34	36
44	Avalon	34	61
45	Avalon	34	41
46	Avalon	34	69
47	Avalon	34	71
48	Avalon	34	30

49	Avalon	34	31
50	Avalon	34	59
51	Avalon	34	33
52	Avalon	34	23
53	Avalon	34	9
54	Avalon	34	13
55	Avalon	34	46
56	Avalon	34	38
57	Avalon	34	37
58	Avalon	34	52
59	Avalon	34	20
60	Avalon	34	50
61	Avalon	34	62
62	Avalon	34	8
63	Avalon	34	66
64	Avalon	34	62
65	Avalon	34	24
66	Avalon	36	73
67	Avalon	36	44
68	Avalon	45	41
69	Avalon	45	69
70	Avalon	45	15
71	Avalon	45	76
72	Central	20	0
73	Central	20	48
74	Central	30	59
75	Central	30	31
76	Central	30	31
77	Central	30	6
78	Central	30	0
79	Central	30	30
80	Central	30	34
81	Central	30	28
82	Central	30	22
83	Central	30	42
84	Central	30	0
85	Central	30	41
86	Central	30	30
87	Central	30	76

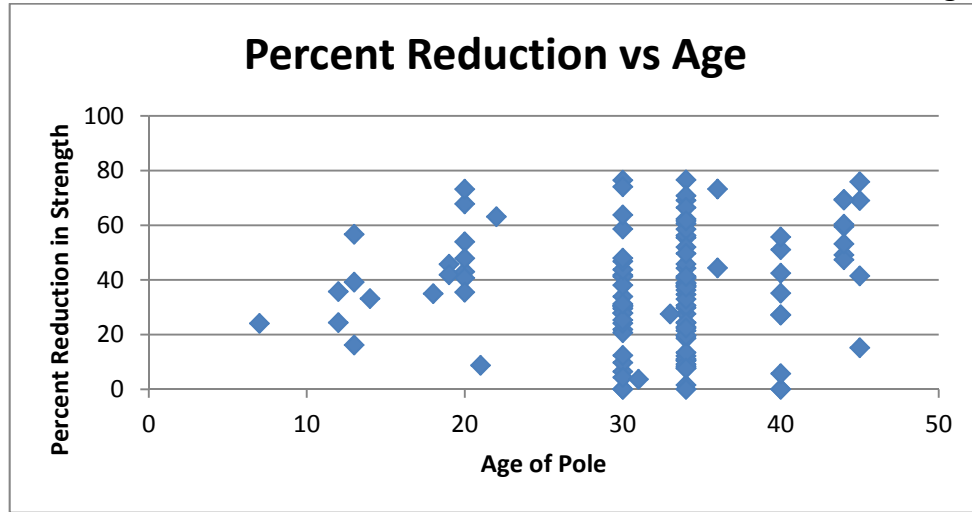
88	Central	30	38
89	Central	30	28
90	Central	30	21
91	Central	30	10
92	Central	30	44
93	Central	30	0
94	Central	30	24
95	Central	30	4
96	Central	30	64
97	Central	30	12
98	Central	30	74
99	Central	30	47
100	Central	30	25
101	Central	30	48
102	Central	30	31
103	Central	31	4
104	Central	34	22
105	Central	34	41
106	Central	44	59
107	Central	44	60
108	Central	44	49
109	Central	44	69
110	Central	44	47
111	Central	44	69
112	Central	44	53
113	Western	33	28
114	Western	40	51
115	Western	40	42
116	Western	40	0
117	Western	40	27
118	Western	40	35
119	Western	40	0
120	Western	40	6
121	Western	40	56
122	Western	40	27

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c) The scatter plot below shows the percentage reduction versus age for all poles subjected to full scale testing:



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- d) The scatter plots below show the percentage reduction versus age for the poles subjected to full scale testing in each of the Avalon, Central, and Western regions of the Island.

