



## Poker Cards Analysis - June 2020

### The Directors

GVC Plc

This is to confirm that iTech Labs has examined the game logs for Poker games for the period **June 01, 2020** to **June 30, 2020** as recorded by the respective game servers and analyzed the Poker cards for statistical randomness. The results of the analysis are given below.

For details on the gaming sites serviced by the GVC Plc game servers and used in this audit refer to the [List](#).

### 1. Poker hand types statistics

These calculations were done for Royal Flush, Straight Flush, Four of a Kind, Full House, Flush, Straight, 3 of a Kind, 2 pairs, 1 Pair, High Card.

The Poker hand types analysis involved creating subsets of data and conducting Chi-square tests on each subset.

The null hypothesis for the chi-square test is that the observed frequencies of each type of hand matches the theoretical values for a deck that has been shuffled using a perfect random number generator. The p-values observed in these multiple tests are expected to follow a uniform distribution for the range 0.0 to 1.0.

The analysis performs a KS Test (Kolmogorov-Smirnov test) for uniform distribution on the observed p-values, and the combined p-value result of this test is taken as the final result of the Poker hand types statistics tests.

#### 1.1 Poker hand types statistics for 52 cards deck:

Test No.	DOF	ChiSqr	P-Value
1	9	7.75	0.55939
2	9	10.16	0.33797
3	9	17.10	0.04716
4	9	16.82	0.05157
5	9	4.88	0.84437
6	9	2.97	0.96558
7	9	8.26	0.50788
8	9	5.48	0.79019
9	9	9.33	0.40773
10	9	10.44	0.31589
11	9	12.36	0.19400
12	9	5.47	0.79180
13	9	5.67	0.77241
14	9	10.03	0.34773
15	9	6.44	0.69498
16	9	7.76	0.55845
17	9	9.26	0.41397
18	9	11.75	0.22781
19	9	14.94	0.09268
20	9	10.94	0.27971
21	9	8.83	0.45275
22	9	1.96	0.99206
23	9	12.11	0.20731
24	9	18.24	0.03249
25	9	16.11	0.06472

26	9	9.01	0.43608
27	9	4.30	0.89029
28	9	6.90	0.64750
29	9	7.19	0.61685
30	9	8.51	0.48341
31	9	16.42	0.05855
32	9	11.28	0.25732
33	9	7.19	0.61718
34	9	12.37	0.19348
35	9	4.71	0.85845
36	9	7.74	0.56095
37	9	9.55	0.38849
38	9	16.29	0.06105
39	9	10.67	0.29905
40	9	12.08	0.20876
41	9	10.21	0.33383
42	9	17.12	0.04689
43	9	4.83	0.84853
44	9	10.93	0.28044
45	9	12.09	0.20847
46	9	4.82	0.84966
47	9	16.44	0.05819
48	9	9.87	0.36147
49	9	4.87	0.84552
50	9	20.70	0.01406
51	9	8.78	0.45787
52	9	13.01	0.16210
53	9	8.37	0.49770
54	9	10.56	0.30692
55	9	13.89	0.12646
56	9	4.09	0.90508
57	9	4.30	0.89038
58	9	4.60	0.86771
59	9	5.02	0.83280
60	9	4.59	0.86815
61	9	9.35	0.40587
62	9	6.89	0.64815
63	9	7.37	0.59828
64	9	8.79	0.45696
65	9	18.71	0.02780
66	9	7.11	0.62583
67	9	8.17	0.51753
68	9	6.41	0.69867
69	9	5.40	0.79815
70	9	12.92	0.16609
71	9	13.41	0.14494
72	9	8.69	0.46643
73	9	7.54	0.58088
74	9	6.87	0.65065
75	9	7.44	0.59146
76	9	6.09	0.73040
77	9	11.24	0.25946
78	9	7.32	0.60411
79	9	11.32	0.25426
80	9	5.92	0.74765

81	9	13.61	0.13687
82	9	13.13	0.15670
83	9	3.29	0.95145
84	9	7.30	0.60563
85	9	5.99	0.74066
86	9	9.96	0.35345
87	9	5.01	0.83381
88	9	9.08	0.43008
89	9	2.31	0.98559
90	9	11.32	0.25427
91	9	7.44	0.59190
92	9	17.93	0.03598
93	9	14.59	0.10280
94	9	15.07	0.08892
95	9	15.39	0.08070
96	9	5.53	0.78569
97	9	10.98	0.27687
98	9	18.38	0.03102
99	9	6.21	0.71906
100	9	7.16	0.62061
Combined P-value for all tests (Using KS method)			0.70692

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

## 1.2 Poker hand types statistics for 36 cards deck:

Test No.	DOF	ChiSqr	P-Value
1	9	3.48	0.94197
2	9	9.12	0.42650
3	9	5.12	0.82363
4	9	8.77	0.45878
5	9	8.48	0.48646
6	9	7.78	0.55657
7	9	15.77	0.07189
8	9	9.26	0.41392
9	9	7.43	0.59272
10	9	10.93	0.28034
11	9	12.59	0.18214
12	9	4.43	0.88056
13	9	6.58	0.68031
14	9	9.18	0.42119
15	9	14.57	0.10337
16	9	4.53	0.87309
17	9	10.20	0.33420
Combined P-value for all tests (Using KS method)			0.95609

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

## 2. Poker rank statistics

The Poker rank analysis aims to establish that the rank of the cards in each position was equally distributed in one of the 13 possible ranks (2, 3, 4, 5, 6, 7, 8, 9, 10, J, Q, K, A) for a 52 card deck and 9 ranks (6, 7, 8, 9, 10, J, Q, K, A) for a 36 card deck.

The Poker rank analysis involved creating subsets of data and conducting Chi-square tests on each subset. The analysis performs a KS Test (Kolmogorov-Smirnov test) for uniform distribution on the observed p-values, and the combined p-value result of this test is taken as the final result of the Ranks statistics tests.

## 2.1 Poker rank statistics for 52 cards deck:

Test No.	Positions	DOF	ChiSqr	P-Value
1	7	84	74.54	0.76024
2	7	84	72.77	0.80414
3	7	84	93.30	0.22852
4	7	84	64.45	0.94429
5	7	84	78.05	0.66225
6	7	84	86.10	0.41607
7	7	84	112.44	0.02085
8	7	84	63.71	0.95159
9	7	84	79.54	0.61745
10	7	84	87.75	0.36817
11	7	84	60.95	0.97261
12	7	84	65.26	0.93542
13	7	84	93.65	0.22100
14	7	84	66.18	0.92413
15	7	84	70.29	0.85760
16	7	84	104.84	0.06157
17	7	84	82.09	0.53846
18	7	84	95.81	0.17811
19	7	84	74.04	0.77313
20	7	84	76.04	0.71998
21	7	84	97.87	0.14304
22	7	84	88.73	0.34098
23	7	84	106.62	0.04846
24	7	84	88.96	0.33485
25	7	84	81.87	0.54550
26	7	84	100.36	0.10770
27	7	84	88.40	0.35006
28	7	84	76.16	0.71661
29	7	84	70.75	0.84830
30	7	84	76.91	0.69558
31	7	84	87.17	0.38489
32	7	84	86.45	0.40573
33	7	84	91.25	0.27587
34	7	84	83.87	0.48337
35	7	84	109.11	0.03419
36	7	84	91.47	0.27057
37	7	84	81.45	0.55840
38	7	84	108.72	0.03618
39	7	84	75.75	0.72804
40	7	84	97.55	0.14803
41	7	84	122.97	0.00361
42	7	84	74.29	0.76680
43	7	84	81.91	0.54416

44	7	84	89.03	0.33285
45	7	84	75.14	0.74439
46	7	84	80.32	0.59352
47	7	84	74.96	0.74920
48	7	84	77.43	0.68058
49	7	84	94.42	0.20510
50	7	84	68.49	0.89006
51	7	84	74.32	0.76596
52	7	84	87.18	0.38445
53	7	84	84.01	0.47928
54	7	84	95.68	0.18046
55	7	84	94.25	0.20843
56	7	84	74.42	0.76349
57	7	84	98.83	0.12846
58	7	84	78.01	0.66351
59	7	84	68.82	0.88446
60	7	84	99.36	0.12096
61	7	84	121.22	0.00491
62	7	84	83.27	0.50187
63	7	84	81.24	0.56512
64	7	84	79.89	0.60670
65	7	84	61.82	0.96697
66	7	84	79.55	0.61701
67	7	84	94.58	0.20183
68	7	84	93.57	0.22271
69	7	84	73.95	0.77536
70	7	84	76.34	0.71162
71	7	84	86.12	0.41550
72	7	84	91.99	0.25811
73	7	84	97.59	0.14745
74	7	84	73.19	0.79408
75	7	84	101.06	0.09908
76	7	84	89.97	0.30799
77	7	84	93.92	0.21542
78	7	84	86.73	0.39747
79	7	84	103.06	0.07741
80	7	84	98.67	0.13072
81	7	84	81.35	0.56168
82	7	84	120.45	0.00563
83	7	84	91.03	0.28134
84	7	84	83.62	0.49131
85	7	84	94.92	0.19513
86	7	84	78.06	0.66209
87	7	84	68.28	0.89363
88	7	84	80.26	0.59526
89	7	84	63.75	0.95116
90	7	84	80.05	0.60179
91	7	84	59.57	0.97998
92	7	84	92.84	0.23865
93	7	84	71.03	0.84261
94	7	84	105.83	0.05399
95	7	84	86.34	0.40894
96	7	84	89.67	0.31604
97	7	84	79.24	0.62647
98	7	84	68.87	0.88361

99	7	84	80.75	0.58033
100	7	84	76.11	0.71804
Combined P-value for all tests (Using KS method)				0.98669

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

## 2.2 Poker rank statistics for 36 cards deck:

Test No.	Positions	DOF	ChiSqr	P-Value
1	7	56	45.07	0.85190
2	7	56	57.35	0.42481
3	7	56	65.45	0.18165
4	7	56	60.44	0.31866
5	7	56	47.56	0.78148
6	7	56	50.24	0.69176
7	7	56	62.06	0.26897
8	7	56	53.21	0.58109
9	7	56	61.06	0.29910
10	7	56	60.78	0.30795
11	7	56	52.47	0.60915
12	7	56	72.25	0.07087
13	7	56	46.16	0.82293
14	7	56	58.26	0.39219
15	7	56	57.42	0.42235
16	7	56	64.21	0.21108
17	7	56	59.44	0.35134
18	7	56	52.67	0.60164
19	7	56	53.23	0.58023
20	7	56	51.25	0.65512
21	7	56	62.23	0.26428
22	7	56	62.11	0.26766
23	7	56	60.33	0.32213
24	7	56	63.26	0.23551
25	7	56	62.36	0.26054
26	7	56	64.49	0.20409
27	7	56	41.60	0.92429
28	7	56	69.04	0.11317
29	7	56	48.41	0.75462
30	7	56	40.60	0.93946
31	7	56	54.22	0.54254
32	7	56	61.54	0.28441
33	7	56	48.77	0.74241
34	7	56	61.98	0.27133
35	7	56	61.48	0.28617
36	7	56	56.38	0.46082
37	7	56	54.86	0.51795
38	7	56	53.05	0.58727
39	7	56	64.76	0.19748
40	7	56	45.87	0.83100
41	7	56	43.87	0.88052
42	7	56	45.26	0.84720
43	7	56	59.70	0.34290
44	7	56	46.66	0.80870
45	7	56	72.22	0.07122

46	7	56	44.81	0.85840
47	7	56	58.91	0.36942
48	7	56	68.63	0.11977
49	7	56	75.77	0.04040
50	7	56	61.90	0.27384
51	7	56	42.03	0.91695
52	7	56	56.74	0.44727
53	7	56	42.42	0.90990
54	7	56	59.77	0.34037
55	7	56	67.69	0.13607
56	7	56	62.32	0.26170
57	7	56	54.36	0.53703
58	7	56	40.90	0.93517
59	7	56	58.60	0.38034
60	7	56	37.68	0.97143
61	7	56	63.14	0.23866
62	7	56	49.36	0.72240
63	7	56	42.57	0.90713
64	7	56	54.98	0.51366
65	7	56	53.52	0.56923
66	7	56	62.74	0.24976
67	7	56	60.15	0.32796
68	7	56	55.75	0.48447
69	7	56	47.24	0.79144
70	7	56	71.65	0.07760
71	7	56	37.90	0.96957
72	7	56	46.87	0.80263
73	7	56	67.83	0.13355
74	7	56	46.27	0.81990
75	7	56	50.70	0.67506
76	7	56	53.68	0.56321
77	7	56	48.53	0.75063
78	7	56	53.45	0.57215
79	7	56	55.26	0.50288
80	7	56	59.15	0.36140
81	7	56	46.57	0.81118
82	7	56	59.30	0.35604
83	7	56	56.08	0.47193
84	7	56	48.94	0.73697
85	7	56	64.24	0.21018
86	7	56	61.34	0.29054
87	7	56	65.29	0.18521
88	7	56	55.23	0.50390
89	7	56	70.95	0.08614
90	7	56	57.63	0.41469
91	7	56	48.21	0.76107
92	7	56	38.04	0.96837
93	7	56	53.45	0.57215
94	7	56	52.07	0.62426
95	7	56	56.75	0.44678
96	7	56	56.64	0.45111
97	7	56	38.20	0.96701
98	7	56	55.07	0.51007
99	7	56	45.40	0.84335
100	7	56	60.15	0.32786

Combined P-value for all tests (Using KS method)	0.35459
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*Notes:*

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

### 3. Poker suits statistics

The Poker suits analysis aims to verify that that the cards dealt exhibit an equal probability of all 4 suits (Clubs, Diamonds, Hearts and Spades) in all positions.

The Poker suits analysis involved creating subsets of data and conducting Chi-square tests on each subset. The analysis performs a KS Test (Kolmogorov-Smirnov test) for uniform distribution on the observed p-values, and the combined p-value result of this test is taken as the final result of the Suits statistics tests.

#### 3.1 Poker suits statistics for 52 cards deck:

Test No.	Positions	DOF	ChiSqr	P-Value
1	7	21	21.85	0.40794
2	7	21	26.84	0.17615
3	7	21	19.40	0.55923
4	7	21	17.78	0.66276
5	7	21	14.19	0.86128
6	7	21	17.45	0.68369
7	7	21	31.98	0.05877
8	7	21	24.45	0.27188
9	7	21	16.14	0.76168
10	7	21	25.81	0.21366
11	7	21	28.49	0.12684
12	7	21	18.14	0.64013
13	7	21	37.41	0.01508
14	7	21	26.30	0.19521
15	7	21	22.66	0.36236
16	7	21	17.87	0.65700
17	7	21	19.65	0.54379
18	7	21	15.15	0.81552
19	7	21	14.29	0.85682
20	7	21	18.57	0.61289
21	7	21	20.55	0.48640
22	7	21	7.67	0.99639
23	7	21	20.68	0.47860
24	7	21	21.34	0.43863
25	7	21	17.52	0.67916
26	7	21	33.03	0.04593
27	7	21	25.60	0.22196
28	7	21	18.12	0.64112
29	7	21	13.85	0.87599
30	7	21	27.07	0.16868
31	7	21	28.40	0.12924
32	7	21	13.32	0.89709
33	7	21	31.47	0.06621
34	7	21	20.30	0.50230
35	7	21	31.99	0.05864
36	7	21	23.05	0.34150
37	7	21	13.85	0.87581
38	7	21	24.46	0.27111
39	7	21	15.97	0.77154



40	7	21	27.23	0.16350
41	7	21	21.66	0.41906
42	7	21	27.42	0.15730
43	7	21	33.10	0.04510
44	7	21	33.07	0.04541
45	7	21	24.66	0.26208
46	7	21	27.57	0.15275
47	7	21	16.35	0.74942
48	7	21	27.36	0.15928
49	7	21	20.06	0.51764
50	7	21	22.55	0.36867
51	7	21	17.01	0.71079
52	7	21	19.37	0.56151
53	7	21	17.91	0.65488
54	7	21	17.28	0.69393
55	7	21	15.59	0.79201
56	7	21	25.84	0.21268
57	7	21	19.87	0.52982
58	7	21	25.29	0.23494
59	7	21	20.89	0.46597
60	7	21	14.42	0.85076
61	7	21	13.77	0.87938
62	7	21	18.59	0.61146
63	7	21	18.87	0.59325
64	7	21	23.29	0.32849
65	7	21	41.11	0.00544
66	7	21	24.89	0.25188
67	7	21	32.36	0.05386
68	7	21	36.76	0.01795
69	7	21	16.02	0.76835
70	7	21	18.45	0.62048
71	7	21	26.41	0.19114
72	7	21	15.54	0.79504
73	7	21	16.11	0.76321
74	7	21	27.39	0.15820
75	7	21	21.65	0.42003
76	7	21	19.25	0.56927
77	7	21	24.15	0.28592
78	7	21	28.15	0.13607
79	7	21	18.09	0.64316
80	7	21	30.78	0.07748
81	7	21	20.69	0.47805
82	7	21	30.66	0.07959
83	7	21	12.95	0.91037
84	7	21	21.95	0.40244
85	7	21	14.15	0.86310
86	7	21	17.02	0.70967
87	7	21	26.72	0.18017
88	7	21	14.55	0.84462
89	7	21	23.25	0.33085
90	7	21	17.19	0.69955
91	7	21	19.20	0.57231
92	7	21	21.75	0.41398
93	7	21	17.99	0.64982
94	7	21	23.48	0.31888

95	7	21	8.76	0.99096
96	7	21	20.99	0.45986
97	7	21	19.74	0.53781
98	7	21	41.06	0.00552
99	7	21	23.77	0.30446
100	7	21	28.12	0.13679
Combined P-value for all tests (Using KS method)				0.54010

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

### 3.2 Poker suits statistics for 36 cards deck:

Test No.	Positions	DOF	ChiSqr	P-Value
1	7	21	30.18	0.08851
2	7	21	25.47	0.22746
3	7	21	24.83	0.25469
4	7	21	35.93	0.02224
5	7	21	17.43	0.68449
6	7	21	16.77	0.72471
7	7	21	19.66	0.54262
8	7	21	31.79	0.06142
9	7	21	27.26	0.16254
10	7	21	28.22	0.13408
11	7	21	36.65	0.01847
12	7	21	27.09	0.16783
13	7	21	22.60	0.36578
14	7	21	24.67	0.26165
15	7	21	13.06	0.90644
16	7	21	22.07	0.39549
17	7	21	19.16	0.57488
18	7	21	17.85	0.65848
19	7	21	21.07	0.45455
20	7	21	13.58	0.88711
21	7	21	22.11	0.39342
22	7	21	14.14	0.86333
23	7	21	18.55	0.61411
24	7	21	27.89	0.14318
25	7	21	19.90	0.52773
26	7	21	19.73	0.53867
27	7	21	22.20	0.38784
28	7	21	30.22	0.08766
29	7	21	23.37	0.32437
30	7	21	14.95	0.82555
31	7	21	31.15	0.07126
32	7	21	17.92	0.65419
33	7	21	21.56	0.42523
34	7	21	12.89	0.91243
35	7	21	27.26	0.16235
36	7	21	12.12	0.93621
37	7	21	27.67	0.14970
38	7	21	18.72	0.60335
39	7	21	28.70	0.12144
40	7	21	21.03	0.45724
41	7	21	19.53	0.55118

42	7	21	12.33	0.93028
43	7	21	24.48	0.27048
44	7	21	40.54	0.00638
45	7	21	32.71	0.04953
46	7	21	20.63	0.48198
47	7	21	13.36	0.89564
48	7	21	13.52	0.88916
49	7	21	19.84	0.53116
50	7	21	16.32	0.75141
51	7	21	25.68	0.21876
52	7	21	18.01	0.64812
53	7	21	22.63	0.36402
54	7	21	26.71	0.18073
55	7	21	15.34	0.80541
56	7	21	14.27	0.85754
57	7	21	20.54	0.48745
58	7	21	17.18	0.70002
59	7	21	16.56	0.73753
60	7	21	17.34	0.69042
61	7	21	25.41	0.22976
62	7	21	28.55	0.12528
63	7	21	14.95	0.82565
64	7	21	14.88	0.82873
65	7	21	9.71	0.98239
66	7	21	15.69	0.78681
67	7	21	23.88	0.29881
68	7	21	11.58	0.95036
69	7	21	20.98	0.46029
70	7	21	26.40	0.19161
71	7	21	20.72	0.47640
72	7	21	21.41	0.43428
73	7	21	21.64	0.42062
74	7	21	17.01	0.71074
75	7	21	28.28	0.13228
76	7	21	28.59	0.12415
77	7	21	36.58	0.01878
78	7	21	21.08	0.45431
79	7	21	26.28	0.19590
80	7	21	17.04	0.70880
81	7	21	24.16	0.28528
82	7	21	20.35	0.49932
83	7	21	13.95	0.87191
84	7	21	20.71	0.47665
85	7	21	10.46	0.97233
86	7	21	13.46	0.89174
87	7	21	23.49	0.31852
88	7	21	25.50	0.22632
89	7	21	19.97	0.52329
90	7	21	15.00	0.82275
91	7	21	22.25	0.38523
92	7	21	24.03	0.29151
93	7	21	19.13	0.57693
94	7	21	29.63	0.09968
95	7	21	25.84	0.21262
96	7	21	24.55	0.26700

97	7	21	20.07	0.51696
98	7	21	26.31	0.19502
99	7	21	29.99	0.09211
100	7	21	17.11	0.70446
Combined P-value for all tests (Using KS method)				0.54656

Notes:

- 1) The P-values are observed probabilities from the Chi-Square tests. The last row shows the result of the KS Test performed on the p-values for all Chi-Square tests, where there are sufficient data.

## 4. Summary of the analysis

### 4.1 Summary of the analysis of 52 cards deck:

The analysis of 52 cards completes by combining the result of the KS Test performed in the 3 types of analysis (Hand Types, Ranks and Suits) for 52 card decks using the Holm's method and producing a single Combined P -value.

The combined p-value produced using the Holm's method is used as indication for statistical randomness.

Combination of p-values using Holm's Method		
Test	P-Value	P-Adjusted
Ranks Test	0.98669	1.00000
Suits Test	0.54010	1.00000
Hand Types Test	0.70692	1.00000
<b>Combined P-Value using Holm's Method</b>		1.00000

Notes:

- 1) The combined p-value of all statistical tests using Holm's Method conducted for 52 card decks is greater than the minimum value of 0.05 which indicates that the randomness of the observed data falls within 95% confidence limits.

The final outcome of the analysis of 52 cards deck indicates that the RNG is working correctly.

### 4.2 Summary of the analysis of 36 cards deck:

The analysis of 36 cards completes by combining the result of the KS Test performed in the 3 types of analysis (Hand Types, Ranks and Suits) for 36 card decks using the Holm's method and producing a single Combined P -value. Where there are insufficient data the individual Chi-Square tests results are used in the Holm's method for producing a combined p-value.

The combined p-value produced from the using the Holm's method is used as indication for statistical randomness.

Combination of p-values using Holm's Method		
Test	P-Value	P-Adjusted
Ranks Test	0.35459	1.00000
Suits Test	0.54656	1.00000
Hands Type Test	0.95609	1.00000
<b>Combined P-Value using Holm's Method</b>		1.00000

Notes:

- 1) The combined p-value of all statistical tests using Holm's Method conducted for 36 card decks is greater than the minimum value of 0.05 which indicates that the randomness of the observed data falls within 95% confidence limits.

The final outcome of the analysis of 36 cards deck indicates that the RNG is working correctly.

## 5. Conclusion

Analysis of actual data from game logs for 'Hand Types', 'Ranks' and 'Suits' for **52-card decks** and **36-card decks** indicated statistical randomness.

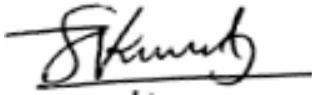
iTech Labs has done limited sanity checks to verify the integrity of the game logs. iTech Labs also maintains a copy of the game logs for verification purposes. There were a large enough number of game records to give the calculations sufficient statistical power.

We conclude that the Random Number Generator (RNG) is working correctly.

Please click here to see the [Original](#) report.

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**Signed:**



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**Kiren Sreekumar**  
**Principal Consultant**  
**iTech Labs Australia**

Date: 22 July, 2020

**Signed:**



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**Geoff Nicoll**  
**Principal Consultant**  
**iTech Labs Australia**

Date: 22 July, 2020

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Disclaimer.

While it is not possible to test all possible scenarios in a laboratory environment, iTech Labs has conducted a level of testing appropriate for a component test of this type.

