COVID-19 subject 304

2021-01-08

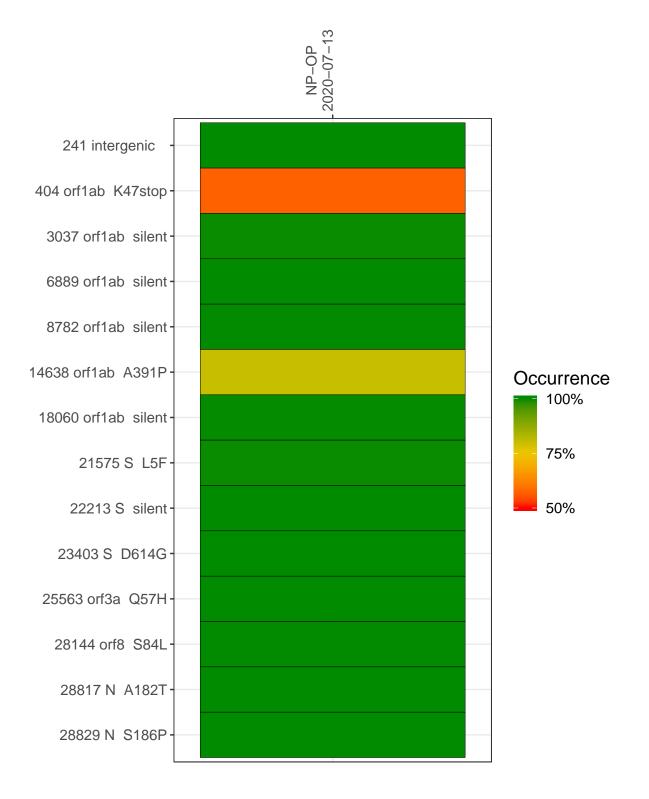
The table below provides a summary of subject samples for which sequencing data is available. The experiments column shows the number of sequencing experiments performed for each specimen. Experiment specific analyses are shown at the end of this report. The code base for this analysis can be found (here).

Table 1. Sample summary.

Experiment	Туре	Input genomes	Sample type	Sample date	Largest contig (KD)	Reference read coverage	Reference read coverage (>= 5 reads)
VSP0248-1	single experiment	NA	NP-OP	2020-07-13	8.38	100.0%	83.1%

Variants shared across samples

The heat map below shows how variants (reference genome USA-WA1-2020) are shared across subject samples where the percent variance is colored. Variants are called if a variant position is covered by 5 for more reads, the alternative base is found in > 50% of read pairs and the variant yields a PHRED score > 20. Gray tiles denote positions where the variant was not the major variant or no variants were found. The relative base compositions of each experiment used to calculate tiles are shown in the following plot where the total number of position reads are shown atop of each plot.



NP-OP 2020-07-13

Base change Expected

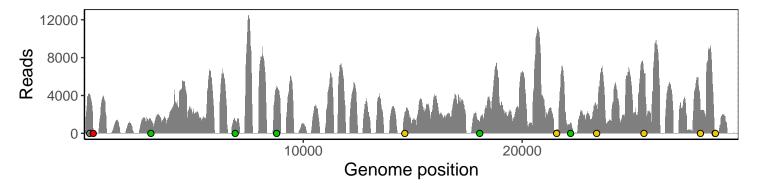
T
C
G
N
Ins/Del
No data

	2020 01 10	
241 intergenic	3914	
404 orf1ab K47stop	7	
3037 orf1ab silent	1398	
6889 orf1ab silent	1360	
8782 orf1ab silent	4819	
14638 orf1ab A391P	1960	
18060 orf1ab silent	1152	
21575 S L5F	409	
22213 S silent	1075	
23403 S D614G	2868	
25563 orf3a Q57H	6581	
28144 orf8 S84L	2511	
28817 N A182T	141	
28829 N S186P	142	
	VSP0248-1	

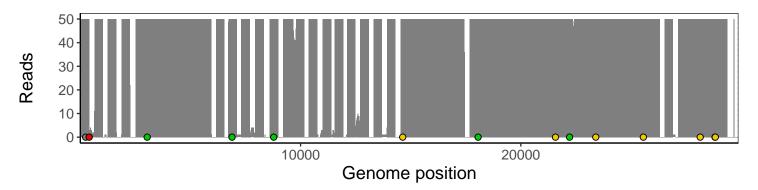
Analyses of individual experiments and composite results.

VSP0248-1 | 2020-07-13 | NP-OP | 304
no-q | NA genomes | single experiment

The plot below shows the number of reads covering each nucleotide position in the reference genome. Variants are shown as colored dots along the bottom of the plot and are color coded according by variant types: gray - transgenic, green - silent, gold - missense, red - nonsense, black - indel.



Excerpt from plot above focusing on reads coverage from 0 to 50 NT.



The longest five assembled contigs are shown below colored by their edit distance to the reference genome.

