

# WGS Quality Control Report

Batch Name: 2024-07-31

Experiment Name: 24ARS\_NGO\_SALM\_LG73Y

Isolate No.	Sample ID	Description	ARSRL	WGS
1	22ARS_GMH0080	NGO10	Neisseria gonorrhoeae	Neisseria gonorrhoeae
2	22ARS_GMH0090	NGO11	Neisseria gonorrhoeae	Neisseria gonorrhoeae
3	22ARS_GMH0107	NGO12	Neisseria gonorrhoeae	Neisseria gonorrhoeae
4	23ARS_GMH0023	NGO23	Klebsiella pneumoniae (x)	Neisseria gonorrhoeae
5	23ARS_MAR0190	NGO25	Neisseria gonorrhoeae	Neisseria gonorrhoeae
6	23ARS_MAR0191	NGO26	Neisseria gonorrhoeae	Neisseria gonorrhoeae
7	23ARS_MAR0247	NGO27	Neisseria gonorrhoeae	Neisseria gonorrhoeae
8	23ARS_RTH0001	NGO28	Neisseria gonorrhoeae	Neisseria gonorrhoeae
9	23ARS_RTH0003	NGO30	Neisseria gonorrhoeae	Neisseria gonorrhoeae
10	23ARS_RTH0004	NGO31	Neisseria gonorrhoeae	Neisseria gonorrhoeae
11	23ARS_RTH0005	NGO32	Neisseria gonorrhoeae	Neisseria gonorrhoeae
12	23ARS_SLH0024	NGO33	Neisseria gonorrhoeae	Neisseria gonorrhoeae
13	23ARS_SLH0025	NGO34	Neisseria gonorrhoeae	Neisseria gonorrhoeae
14	23ARS_SLH0026	NGO35	Neisseria gonorrhoeae	Neisseria gonorrhoeae
15	23ARS_VSM0001	NGO36	Neisseria gonorrhoeae	Neisseria gonorrhoeae
16	23ARS_VSM0033	NGO37	Neisseria gonorrhoeae	Neisseria gonorrhoeae
17	23ARS_VSM0098	NGO38	Neisseria gonorrhoeae	Neisseria gonorrhoeae
18	23ARS_VSM0181	NGO41	Neisseria gonorrhoeae	Neisseria gonorrhoeae
19	23ARS_VSM0477	NGO44	Neisseria gonorrhoeae	Neisseria gonorrhoeae
20	23ARS_VSM0600	NGO45	Neisseria gonorrhoeae	Neisseria gonorrhoeae
21	24ARS_BRH0016	NGO47	Neisseria gonorrhoeae	Neisseria gonorrhoeae
22	24ARS_CVM0067	NGO49	Neisseria gonorrhoeae	Neisseria gonorrhoeae

Legend: PASS | WARNING | FAILURE | EXCEEDS THRESHOLD METRIC/S | (x) - NON-CONCORDANT |

Isolate No.	Sample ID	Contamination	Contigs	GC Percent	N50	Total Length
1	22ARS_GMH0080	0	103	52.50	51133	2116760
2	22ARS_GMH0090	0	334	52.58	47270	2140550
3	22ARS_GMH0107	0	84	52.59	66604	2112654
4	23ARS_GMH0023	0	93	52.51	48995	2122470
5	23ARS_MAR0190	0	246	53.11	52455	2126635
6	23ARS_MAR0191	0	91	52.46	50579	2125474
7	23ARS_MAR0247	0	94	52.52	48929	2110602
8	23ARS_RTH0001	0	96	52.30	59062	2176872
9	23ARS_RTH0003	0	91	52.39	60238	2129311
10	23ARS_RTH0004	0	93	52.57	51395	2108718
11	23ARS_RTH0005	0	90	52.61	58813	2074248
12	23ARS_SLH0024	0	92	52.51	47038	2123959
13	23ARS_SLH0025	0	84	52.65	59337	2072515
14	23ARS_SLH0026	0	103	52.30	58032	2178857
15	23ARS_VSM0001	0	94	52.53	57227	2110956
16	23ARS_VSM0033	0	84	52.51	51589	2123578
17	23ARS_VSM0098	0	83	52.55	56625	2118400
18	23ARS_VSM0181	0	102	52.50	52615	2124581
19	23ARS_VSM0477	0	94	52.50	58791	2120954
20	23ARS_VSM0600	0	93	52.40	50730	2133253
21	24ARS_BRH0016	0	92	52.49	49138	2121615
22	24ARS_CVM0067	0	94	52.50	49068	2126365

Note: \*Isolates were tagged with warning due to uncertain results of species identification using bactinspector or sequence identification levels.

Legend: PASS | WARNING | FAILURE | EXCEEDS THRESHOLD METRIC/S |

With Warning/s

Isolate No.	Sample ID	Value with warning/s
2	22ARS_GMH0090	fastqc.1.Per.sequence.GC.content.metric_value, fastqc.1.Sequence.Duplication.Levels.metric_value, fastqc.1.Sequence.Length.Distribution.metric_value, fastqc.2.Per.sequence.GC.content.metric_value, fastqc.2.Sequence.Duplication.Levels.metric_value, fastqc.2.Sequence.Length.Distribution.metric_value
4	23ARS_GMH0023	fastqc.1.Per.sequence.GC.content.metric_value, fastqc.1.Sequence.Duplication.Levels.metric_value, fastqc.1.Sequence.Length.Distribution.metric_value, fastqc.2.Per.sequence.GC.content.metric_value, fastqc.2.Sequence.Duplication.Levels.metric_value, fastqc.2.Sequence.Length.Distribution.metric_value
5	23ARS_MAR0190	fastqc.1.Per.sequence.GC.content.metric_value, fastqc.1.Sequence.Duplication.Levels.metric_value, fastqc.1.Sequence.Length.Distribution.metric_value, fastqc.2.Per.sequence.GC.content.metric_value, fastqc.2.Sequence.Duplication.Levels.metric_value, fastqc.2.Sequence.Length.Distribution.metric_value
7	23ARS_MAR0247	fastqc.1.Per.sequence.GC.content.metric_value, fastqc.1.Sequence.Duplication.Levels.metric_value, fastqc.1.Sequence.Length.Distribution.metric_value, fastqc.2.Per.sequence.GC.content.metric_value, fastqc.2.Sequence.Duplication.Levels.metric_value, fastqc.2.Sequence.Length.Distribution.metric_value
12	23ARS_SLH0024	fastqc.1.Per.sequence.GC.content.metric_value, fastqc.1.Sequence.Duplication.Levels.metric_value, fastqc.1.Sequence.Length.Distribution.metric_value, fastqc.2.Per.sequence.GC.content.metric_value, fastqc.2.Sequence.Duplication.Levels.metric_value, fastqc.2.Sequence.Length.Distribution.metric_value
21	24ARS_BRH0016	fastqc.1.Per.sequence.GC.content.metric_value, fastqc.1.Sequence.Duplication.Levels.metric_value, fastqc.1.Sequence.Length.Distribution.metric_value, fastqc.2.Per.sequence.GC.content.metric_value, fastqc.2.Sequence.Duplication.Levels.metric_value, fastqc.2.Sequence.Length.Distribution.metric_value
22	24ARS_CVM0067	fastqc.1.Per.sequence.GC.content.metric_value, fastqc.1.Sequence.Duplication.Levels.metric_value, fastqc.1.Sequence.Length.Distribution.metric_value, fastqc.2.Per.sequence.GC.content.metric_value, fastqc.2.Sequence.Duplication.Levels.metric_value, fastqc.2.Sequence.Length.Distribution.metric_value

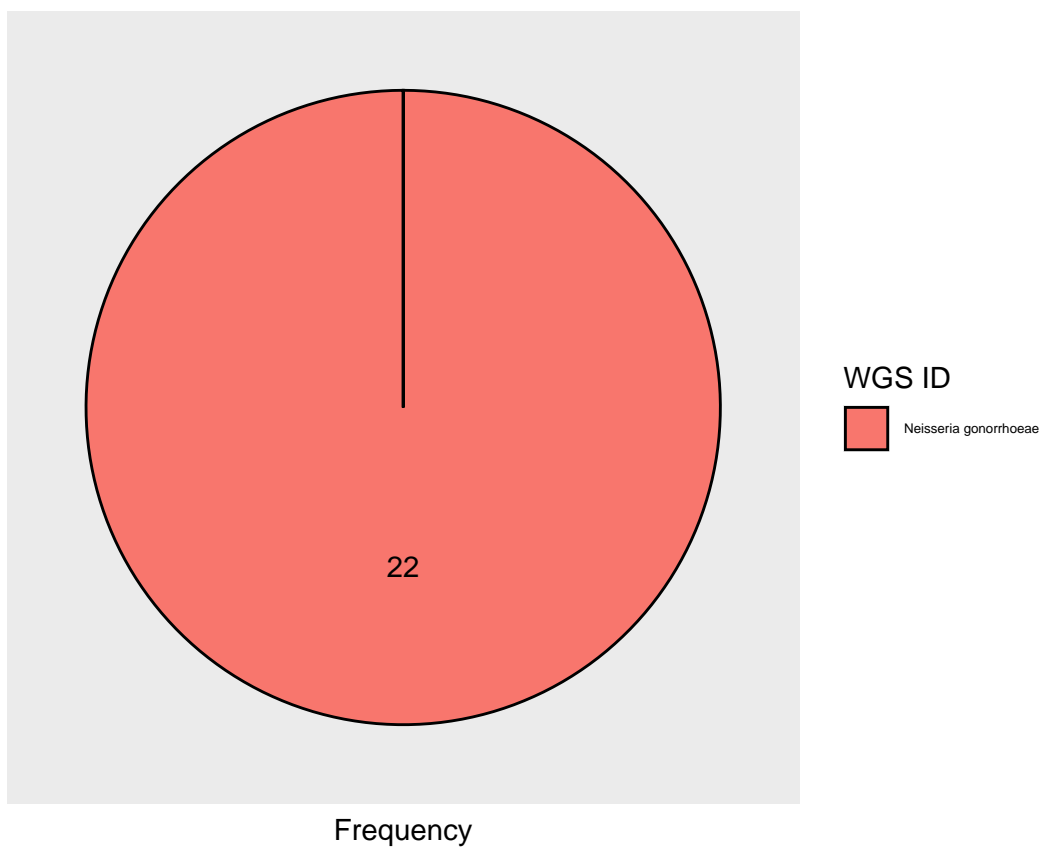
#### List of samples above/below QC threshold metrics

Sample ID	Remarks
No QC failures found.	

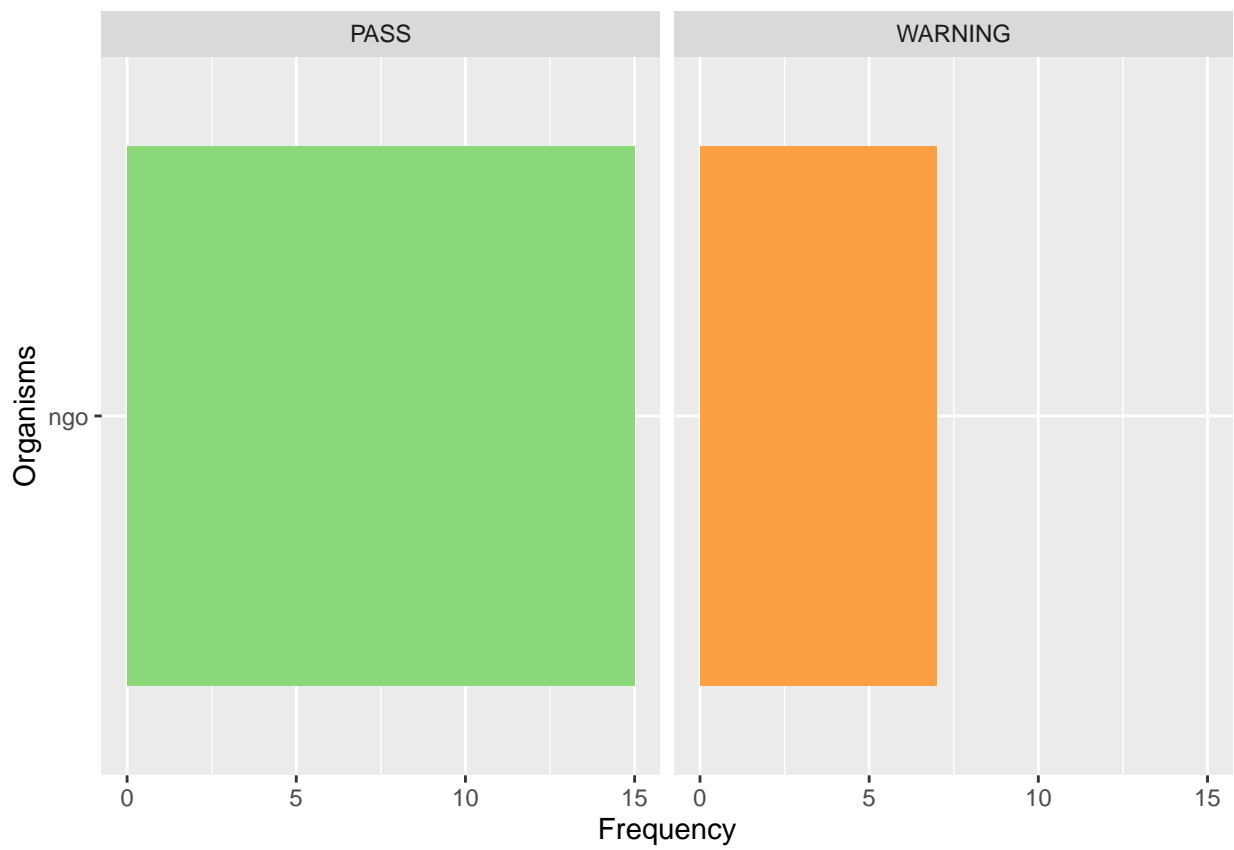
WGS_ID	Number
Neisseria gonorrhoeae	22

- 1 distinct species were identified among 22 isolates.
- 68.18 % (n=15) of the isolates passed the QC, while 31.82 % (n=7) were tagged with warning.
- Concordance between ARSRL and WGS species report was 95.45 %.

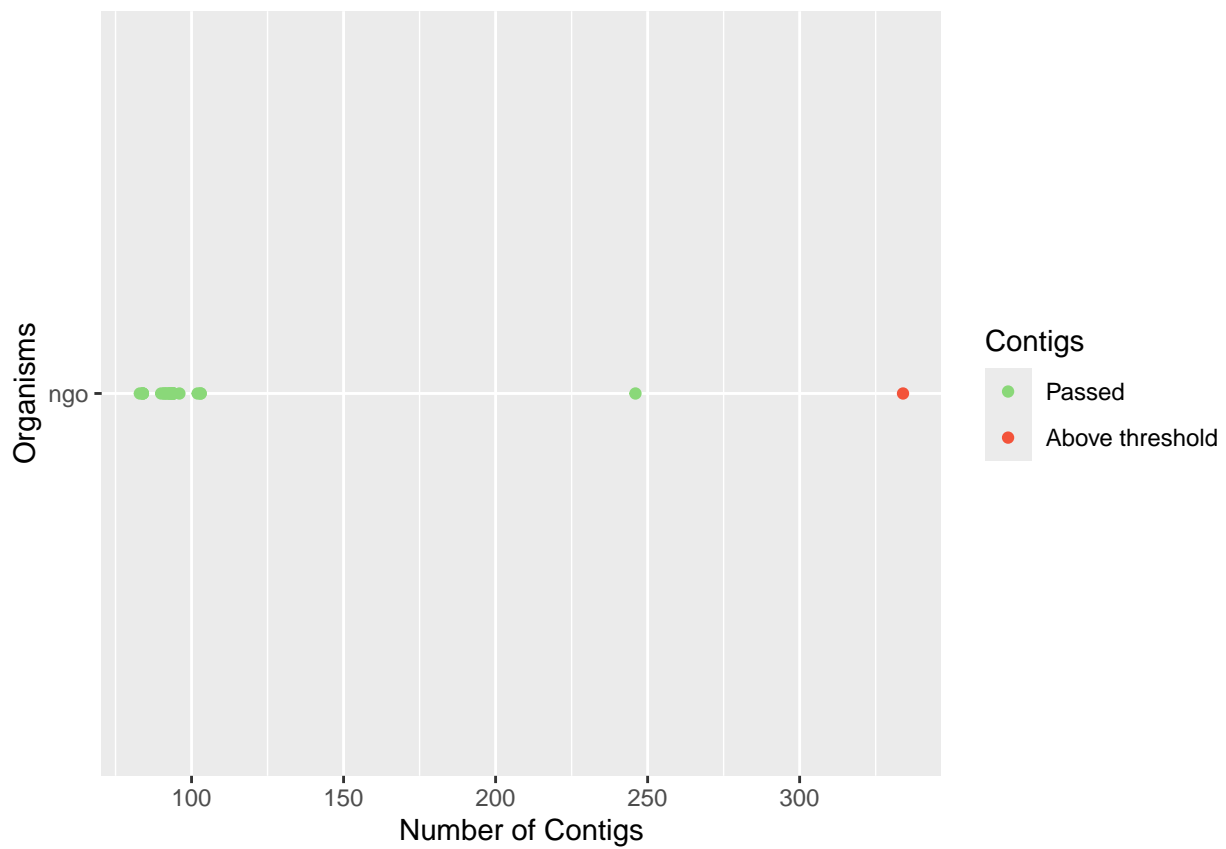
## GRAPHS



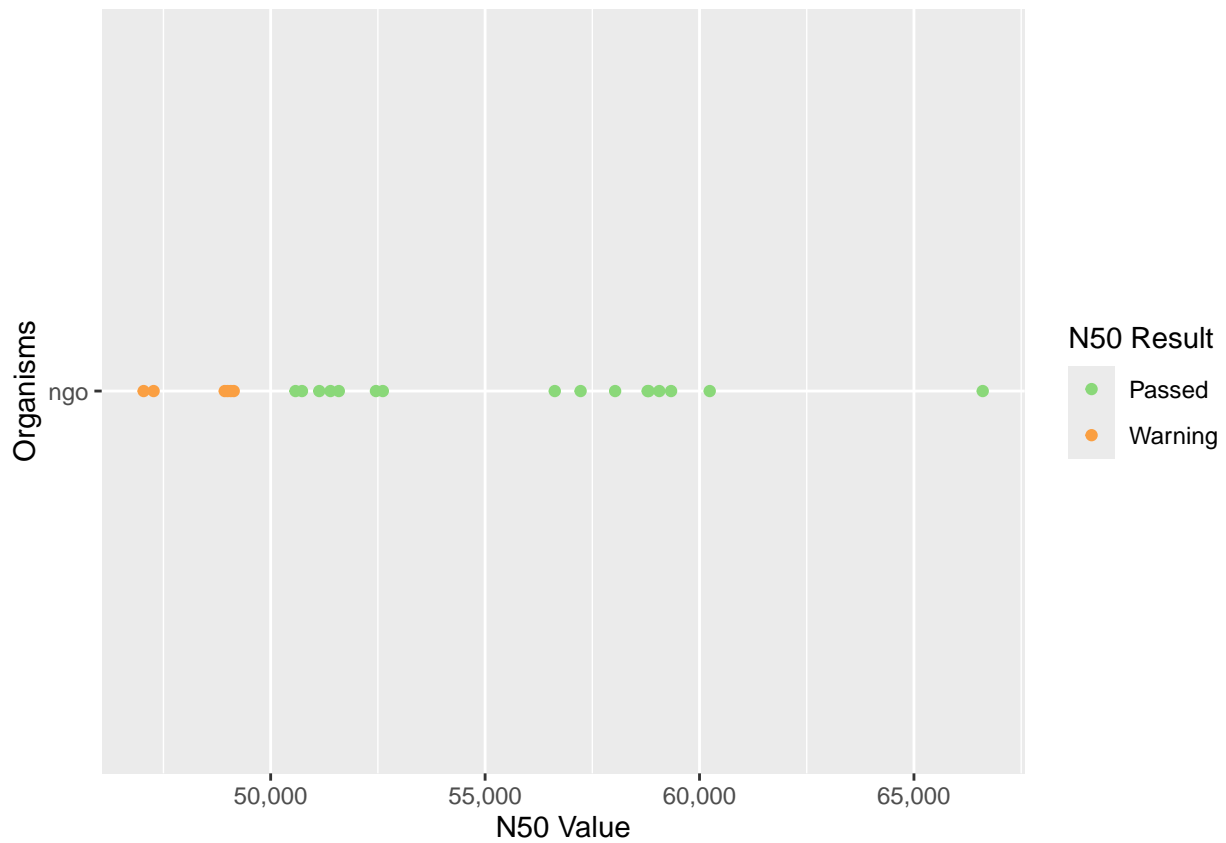
## Result Classification



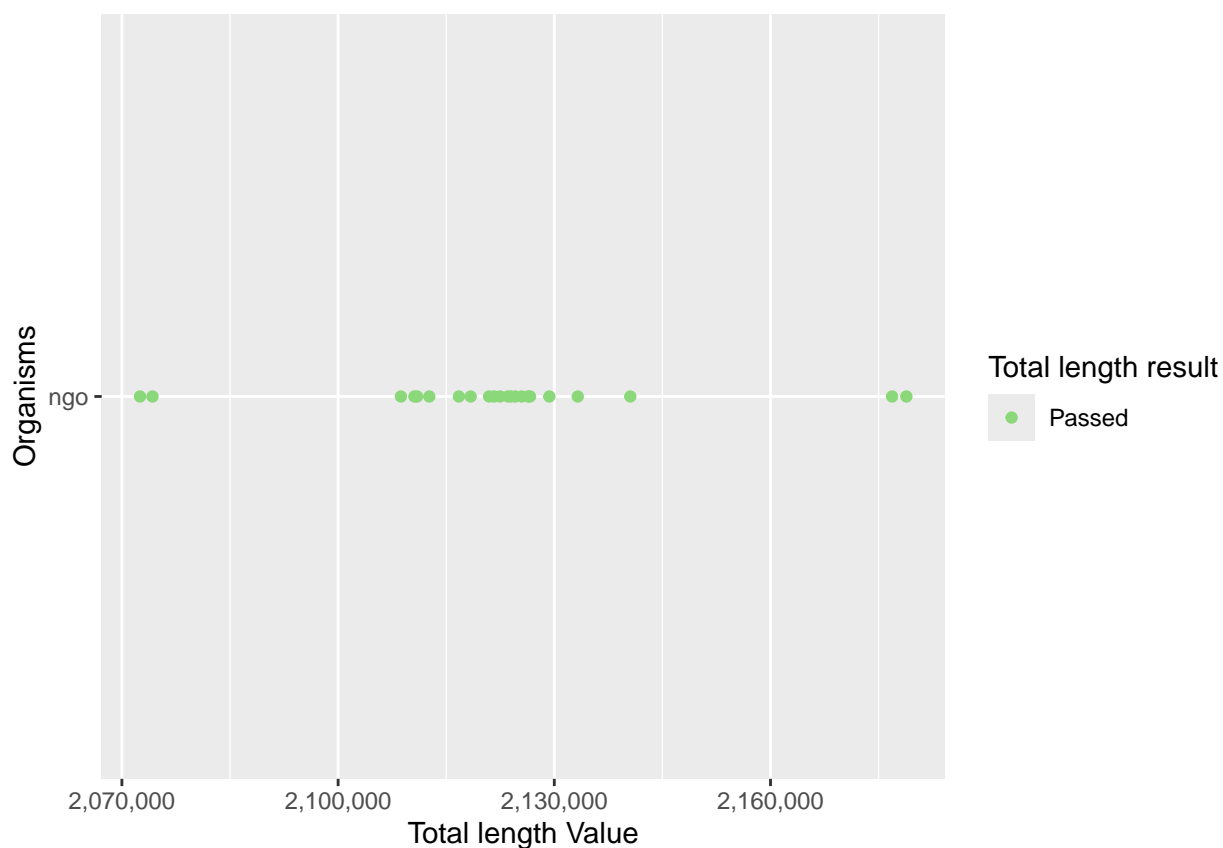
Number of contigs



N50 Value



## Total Length



## RECOMMENDATION:

Sample ID	Action	Reason
No further action required for this batch		

## MLST RESULTS

sample_id	species	MLST	abcZ.59.	adk	aroE	fumC	gdh	pdhC	pgm
22ARS_GMH0080	Neisseria gonorrhoeae	7363	abcZ(59)	39	67	78	148	153	65
22ARS_GMH0090	Neisseria gonorrhoeae	1583	abcZ(59)	39	67	111	148	153	65
22ARS_GMH0107	Neisseria gonorrhoeae	1582	abcZ(59)	39	170	78	148	154	65
23ARS_GMH0023	Neisseria gonorrhoeae	7363	abcZ(59)	39	67	78	148	153	65
23ARS_MAR0190	Neisseria gonorrhoeae	7363	abcZ(59)	39	67	78	148	153	65
23ARS_MAR0191	Neisseria gonorrhoeae	11249	abcZ(59)	39	67	157	148	71	65
23ARS_MAR0247	Neisseria gonorrhoeae	10316	abcZ(59)	39	67	157	149	71	65
23ARS_RTH0001	Neisseria gonorrhoeae	7827	abcZ(59)	39	67	158	148	153	65
23ARS_RTH0003	Neisseria gonorrhoeae	14312	abcZ(59)	39	170	157	148	71	133
23ARS_RTH0004	Neisseria gonorrhoeae	8130	abcZ(59)	39	170	78	149	154	65
23ARS_SLH0024	Neisseria gonorrhoeae	17546	abcZ(435)	39	170	111	148	71	65
23ARS_SLH0025	Neisseria gonorrhoeae	-	abcZ(59)	39	67	158	149	71	~65
23ARS_SLH0026	Neisseria gonorrhoeae	7823	abcZ(435)	39	170	111	148	153	65
23ARS_VSM0001	Neisseria gonorrhoeae	8130	abcZ(59)	39	170	78	149	154	65
23ARS_VSM0033	Neisseria gonorrhoeae	1587	abcZ(59)	39	67	78	148	153	133
23ARS_VSM0098	Neisseria gonorrhoeae	12982	abcZ(59)	39	67	158	148	71	133
23ARS_VSM0181	Neisseria gonorrhoeae	7363	abcZ(59)	39	67	78	148	153	65
23ARS_VSM0477	Neisseria gonorrhoeae	7356	abcZ(109)	39	67	78	148	153	65
23ARS_VSM0600	Neisseria gonorrhoeae	8776	abcZ(59)	39	67	157	148	71	133
24ARS_BRH0016	Neisseria gonorrhoeae	14105	abcZ(59)	142	67	78	149	153	133
24ARS_CVM0067	Neisseria gonorrhoeae	7363	abcZ(59)	39	67	78	148	153	65

Legend: (-) Not identified

## MLST RESULTS SUMMARY:

wgs_id	mlst_count
Neisseria gonorrhoeae	- (n= 1 ), 10316 (n= 1 ), 11249 (n= 1 ), 12982 (n= 1 ), 14105 (n= 1 ), 14312 (n= 1 ), 1582 (n= 1 ), 1583 (n= 1 ), 1587 (n= 1 ), 17546 (n= 1 ), 7356 (n= 1 ), 7363 (n= 5 ), 7823 (n= 1 ), 7827 (n= 1 ), 8130 (n= 2 ), 8776 (n= 1 )

Legend: (-) Not identified

AMR PREDICTION RESULTS

Neisseria gonorrhoeae				
sample_id	AMR BETA-LACTAM	AMR EFFLUX	AMR TETRACYCLINE	STRESS EFFLUX
22ARS_GMH0080	blaTEM-1	norM, mtrC, mtrR, mtrA, farB	tet(M)	mtrF
22ARS_GMH0090	blaTEM-1	mtrC, mtrR, norM, mtrA, farB	tet(M)	mtrF
22ARS_GMH0107	blaTEM-135	norM, mtrC, mtrR, mtrA, farB	NA	mtrF
23ARS_GMH0023	blaTEM-1	mtrC, mtrR, farB, norM, mtrA	tet(M)	mtrF
23ARS_MAR0190	blaTEM-1	norM, mtrC, mtrR, mtrA, farB	tet(M)	mtrF
23ARS_MAR0191	blaTEM-1	mtrC, mtrR, norM, mtrA, farB	NA	mtrF
23ARS_MAR0247	blaTEM-1	norM, mtrC, mtrR, mtrA, farB	tet(M)	mtrF
23ARS_RTH0001	blaTEM-1	mtrC, mtrR, norM, mtrA, farB	NA	mtrF
23ARS_RTH0003	blaTEM-1	mtrC, mtrR, norM, mtrA, farB	NA	mtrF
23ARS_RTH0004	blaTEM-135	norM, mtrC, mtrR, mtrA, farB	NA	mtrF
23ARS_RTH0005	blaTEM-1	mtrC, mtrR, norM, mtrA, farB	NA	mtrF
23ARS_SLH0024	blaTEM-1	mtrC, mtrR, norM, mtrA, farB	tet(M)	mtrF
23ARS_SLH0025	blaTEM-1	mtrC, mtrR, norM, mtrA, farB	NA	mtrF
23ARS_SLH0026	blaTEM-1	mtrC, mtrR, norM, mtrA, farB	tet(M)	mtrF
23ARS_VSM0001	blaTEM-135	mtrC, mtrR, norM, farB, mtrA	NA	mtrF
23ARS_VSM0033	blaTEM-1	norM, mtrC, mtrR, farB, mtrA	tet(M)	mtrF
23ARS_VSM0098	blaTEM-1	norM, mtrC, mtrR, mtrA, farB	tet(M)	mtrF
23ARS_VSM0181	blaTEM-1	norM, mtrC, mtrR, mtrA, farB	tet(M)	mtrF
23ARS_VSM0477	blaTEM-1	norM, mtrC, mtrR, mtrA, farB	tet(M)	mtrF
23ARS_VSM0600	blaTEM-1	norM, mtrC, mtrR, farB, mtrA	NA	mtrF
24ARS_BRH0016	blaTEM-1	norM, mtrC, mtrA, farB	tet(M)	mtrF
24ARS_CVM0067	blaTEM-1	norM, mtrC, mtrR, farB, mtrA	tet(M)	mtrF