

## A1: Summary Report

### Patient Details

Patient Name:	MICHAEL TRENCH	Barcode:	1010
DOB:	3/11/01	NHI:	HLX8239
Gender:	M	Ethnicity:	AMERICAN
Location:	WELLINGTON	Sample Type:	SPUTUM
Sample Date:	5/01/20	Culture Method:	MGIT CULTURED ISOLATES
Reporting Lab:	LABPLUS	Technician:	DR ROD JACKSON
Sequencing Date:	19/05/20	Sequencing:	WGS
Requested by:	DR. EXAMPLE	Contact:	EMAIL.ADDRESS@DHB.GOV.T.NZ

### Resistance Profile

Drug Class	Resistance	Drug	Mutation
First Line	Sensitive	Pyrazinamide	<i>No resistance predicted</i>
	Resistance	Isoniazid	<b>fabG1 —</b>
		Rifampicin	<b>rpoB Ser450Trp</b>
		Ethambutol	<b>embB Met306Ile</b>
Second Line	Sensitive	Amikacin	<i>No resistance predicted</i>
		Capreomycin	<i>No resistance predicted</i>
		Kanamycin	<i>No resistance predicted</i>
		Linezolid	<i>No resistance predicted</i>
		Para-aminosalicylic	<i>No resistance predicted</i>
		Streptomycin	<i>No resistance predicted</i>
	Resistance	Ethionamide	<b>fabG1 —</b>
		Fluoroquinolones	<b>gyrB Asn499Asp</b>

## A2: Whole Genome Sequencing Report

### Genotypic Report

Drug	Genomics Position	Allele		Gene (Mutation)	High Confidence	PMID
		Reference	Alternative			
Isoniazid	1673425	C	T	fabG1 —	yes	26104204
Rifampicin	761155	C	G	rpoB Ser450Trp	yes	7759399
Rifampicin	761155	C	T	rpoB Ser450Leu	yes	21300839
Rifampicin	761277	A	T	rpoB Ile491Phe	yes	10565894
Ethambutol	4247431	G	A	embB Met306Ile	yes	21300839
Ethambutol	4247431	G	C	embB Met306Ile	yes	21300839
Ethambutol	4247431	G	T	embB Met306Ile	yes	21300839
Ethionamide	1673425	C	T	fabG1 —	yes	26104204
Fluoroquinolones	6734	A	G	gyrB Asn499Asp	yes	17412727
Fluoroquinolones	6735	A	C	gyrB Asn499Thr	yes	24055765
Fluoroquinolones	6737	A	C	gyrB Thr500Pro	yes	24055765
Fluoroquinolones	6741	A	T	gyrB Glu501Val	yes	19721073
Fluoroquinolones	6742	A	T	gyrB Glu501Asp	yes	19721073
Fluoroquinolones	6750	C	T	gyrB Ala504Val	yes	24055765
Fluoroquinolones	7563	G	T	gyrA Gly88Cys	yes	24055765
Fluoroquinolones	7564	G	C	gyrA Gly88Ala	yes	24055765
Fluoroquinolones	7570	C	T	gyrA Ala90Val	yes	21300839
Fluoroquinolones	7572	T	C	gyrA Ser91Pro	yes	21562102
Fluoroquinolones	7582	A	G	gyrA Asp94Gly	yes	21300839
Fluoroquinolones	7582	A	C	gyrA Asp94Ala	yes	21300839
Fluoroquinolones	6575	C	T	gyrB Arg446Cys	no	19470506
Fluoroquinolones	6749	G	A	gyrB Ala504Thr	no	19470506
Fluoroquinolones	7582	A	T	gyrA Asp94Val	no	17434825

**NOTE:** This genotypic report is a prediction of drug resistance based on the detection of known resistance conferring mutations, and should only be used as a guide. The actual drug susceptibility may differ from what is stated in this report.

### A3: Technical Report

#### Pipeline

Pipeline	Resistance V0.01a	Genome	H37Rv
Phred Score	30	Masking	NO

#### Forward Statistics: WRX.R1.fastq.gz

Pre-Trimming		Post-Trimming	
Total Reads	VALUE	Total Reads	VALUE (%)
Average Quality	VALUE	Average Quality	VALUE
GC%	VALUE	GC%	VALUE
Mean read length	VALUE	Mean read length	VALUE
Read range	VALUE	Read range	VALUE

#### Reverse Statistics

File name	NAME		
Pre-Trimming		Post-Trimming	
Total Reads	VALUE	Total Reads	VALUE (%)
Average Quality	VALUE	Average Quality	VALUE
GC%	VALUE	GC%	VALUE
Mean read length	VALUE	Mean read length	VALUE
Read range	VALUE	Read range	VALUE

#### Alignment Statistics

#### Notes