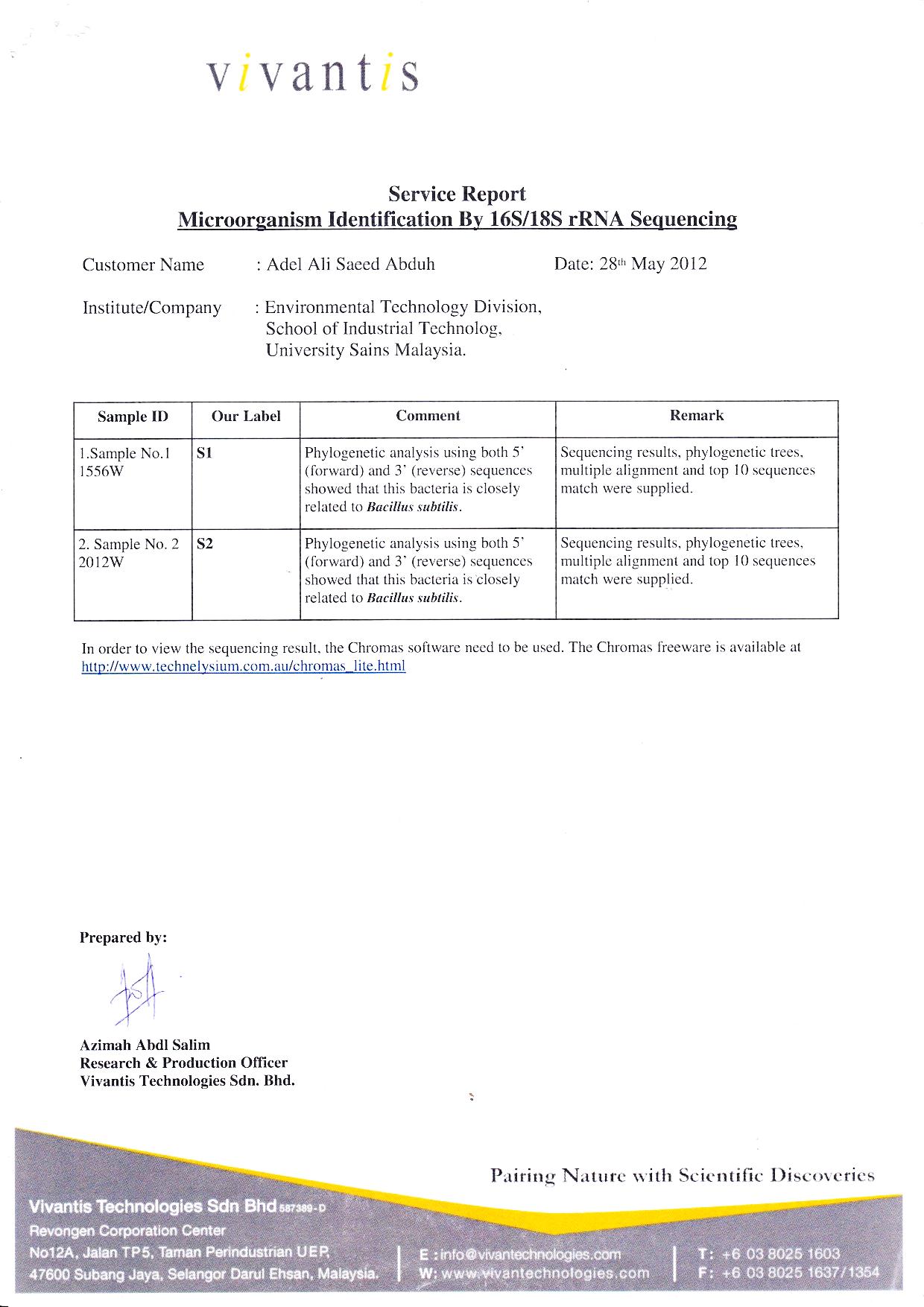
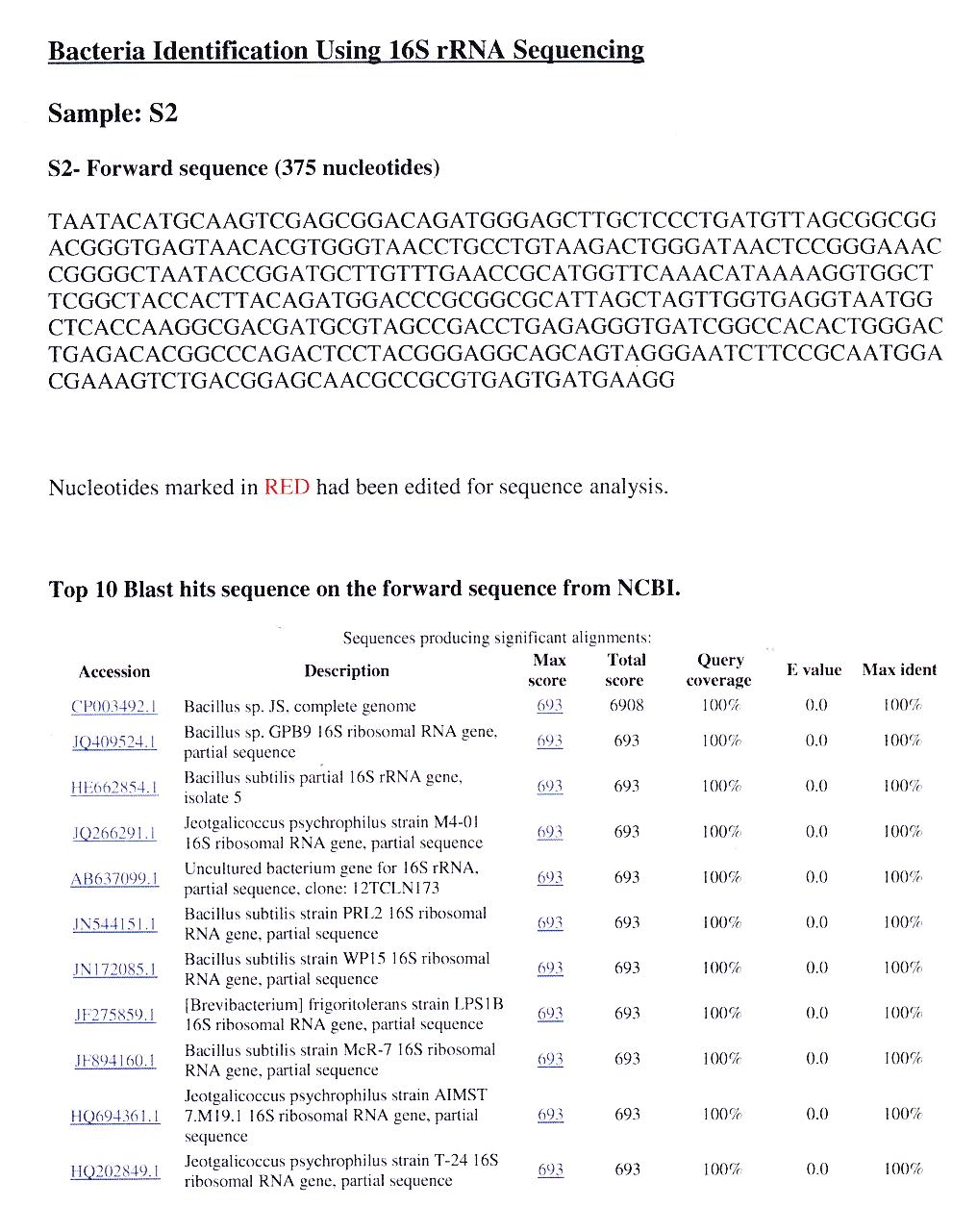
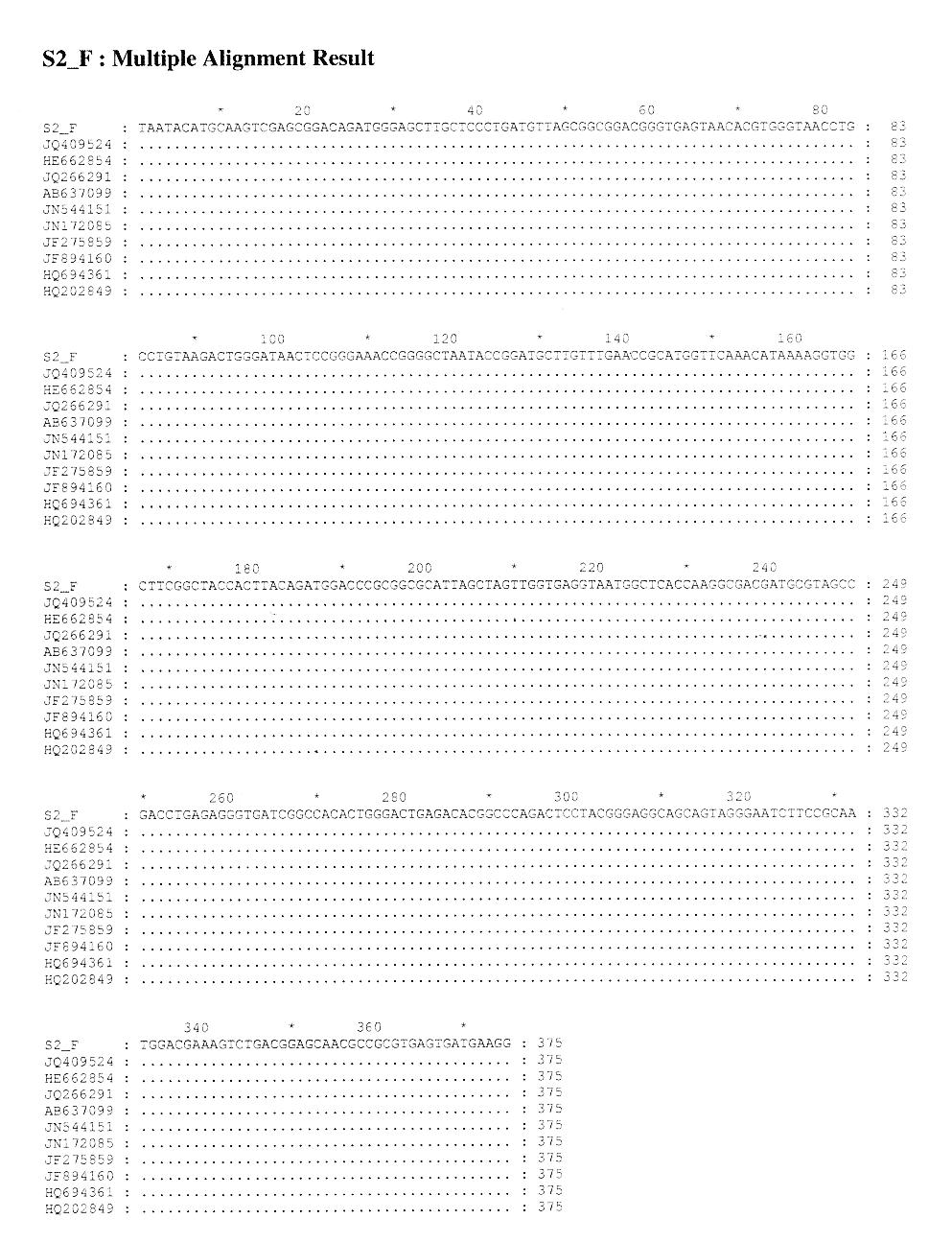
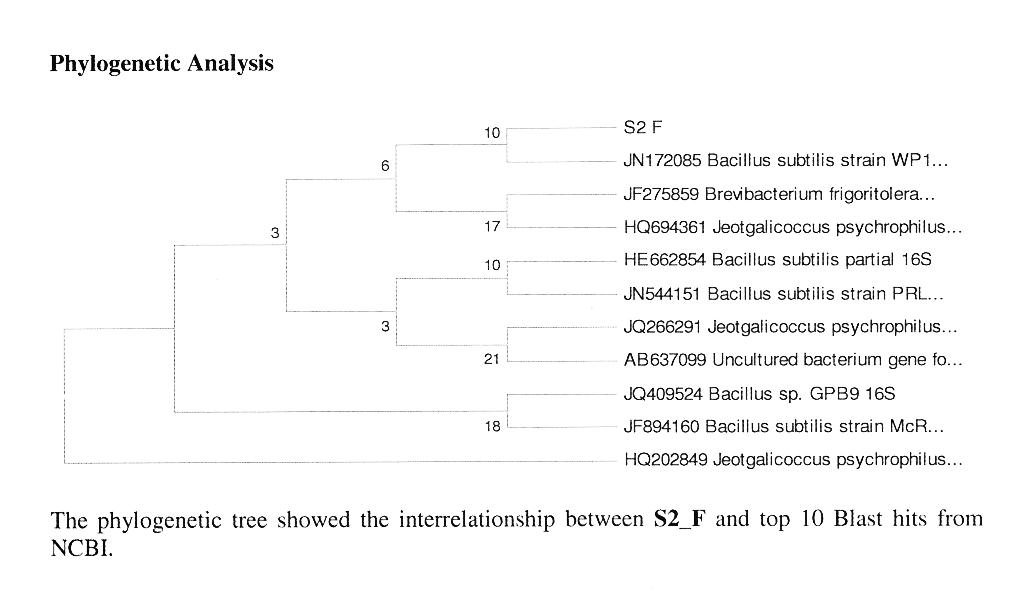
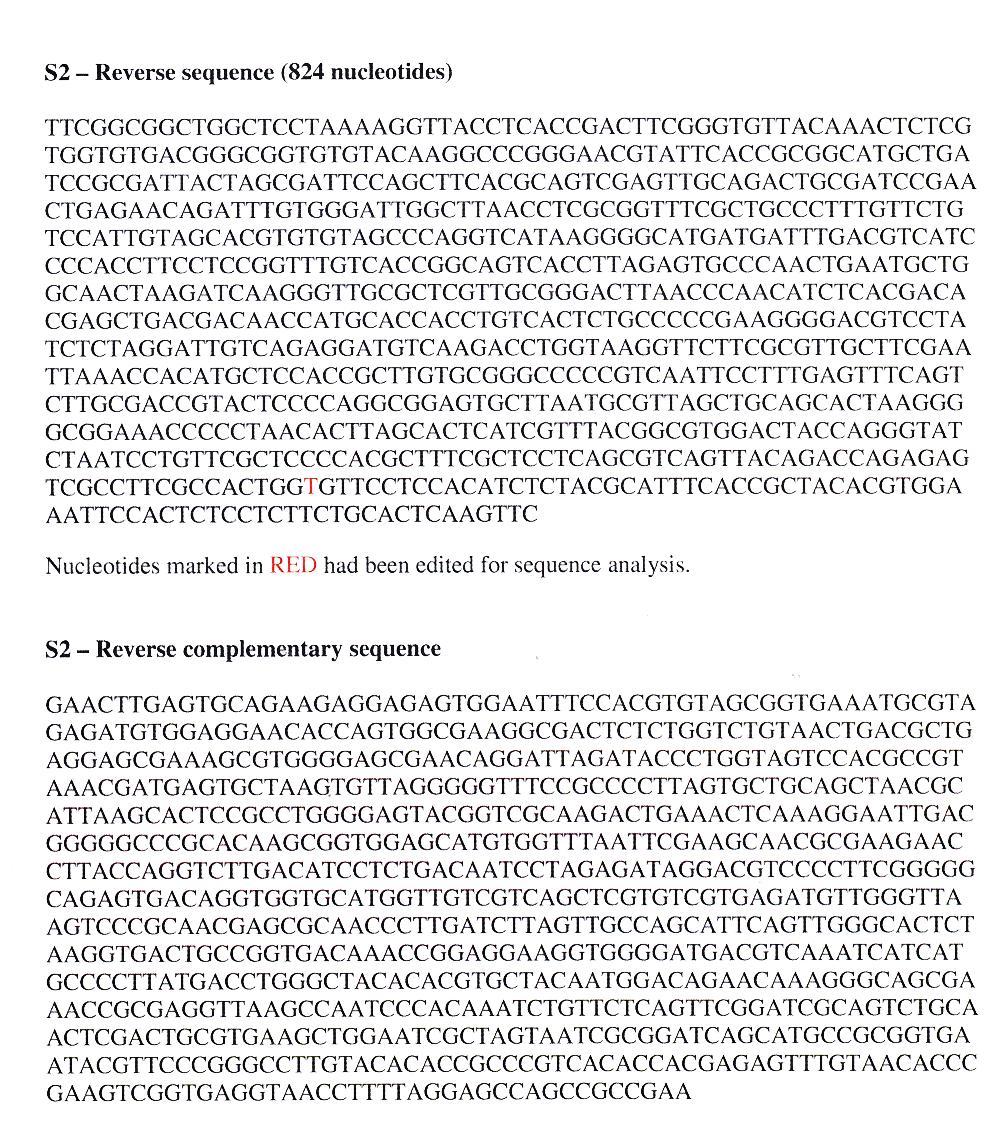
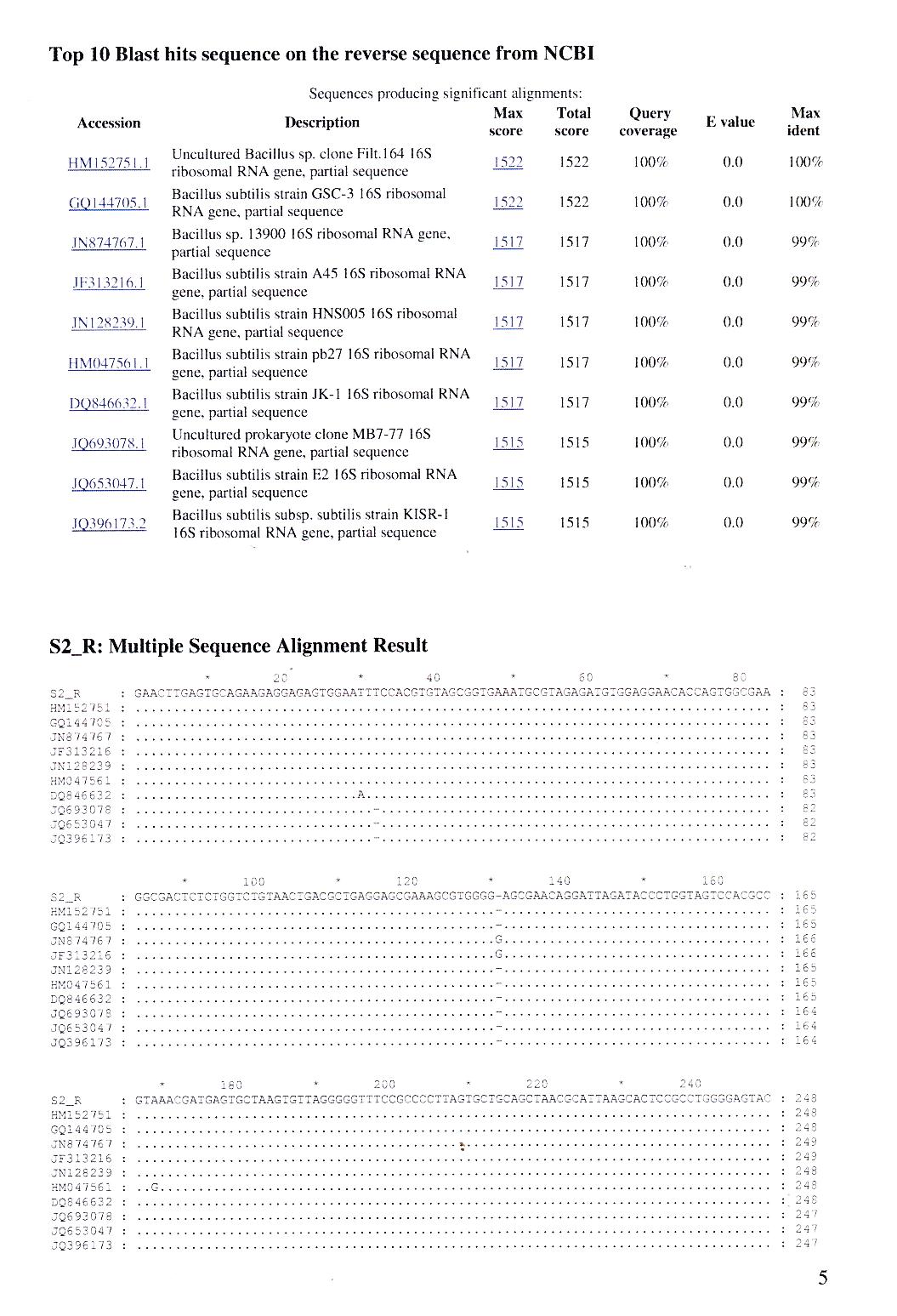
**Appendix A** 

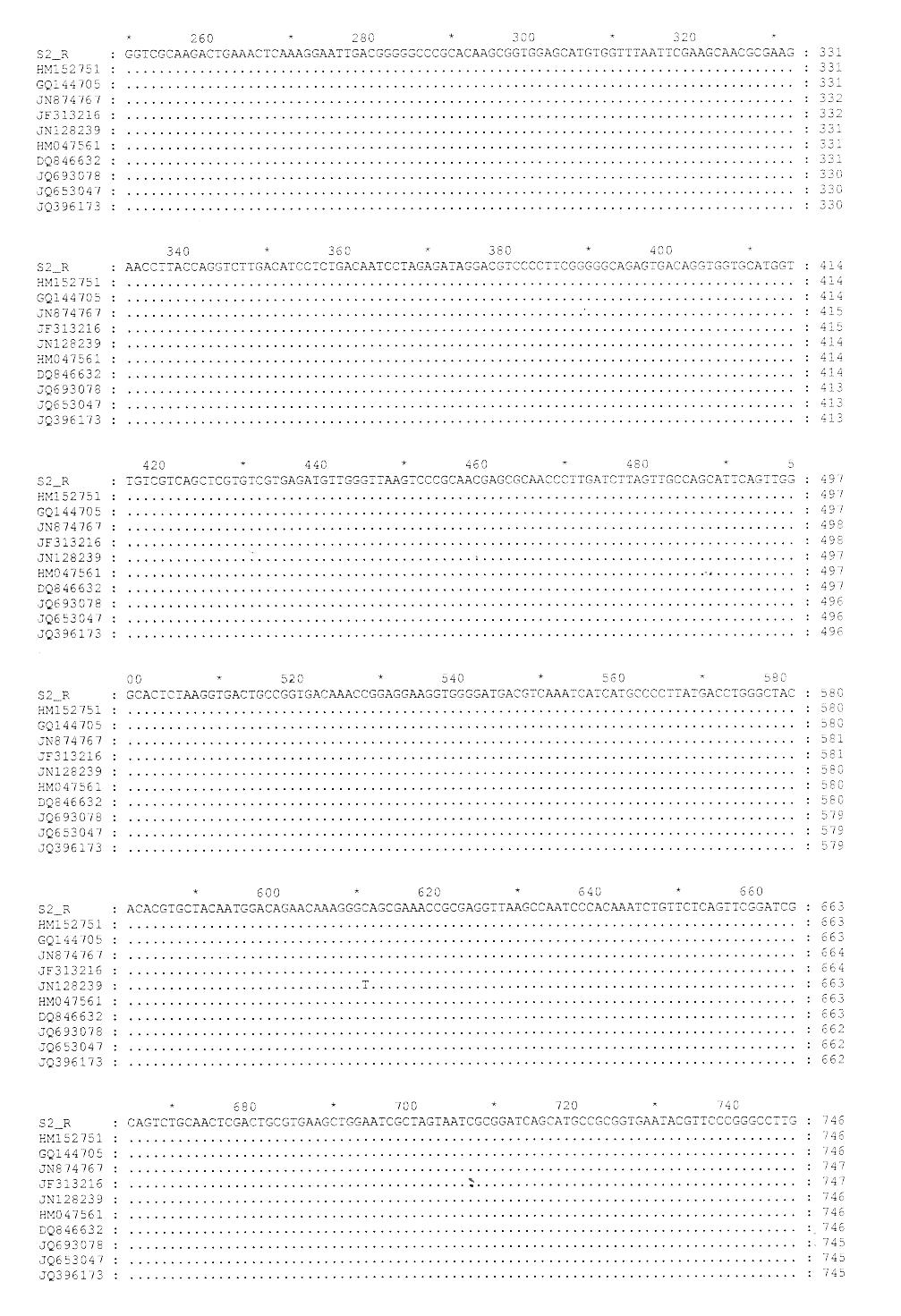


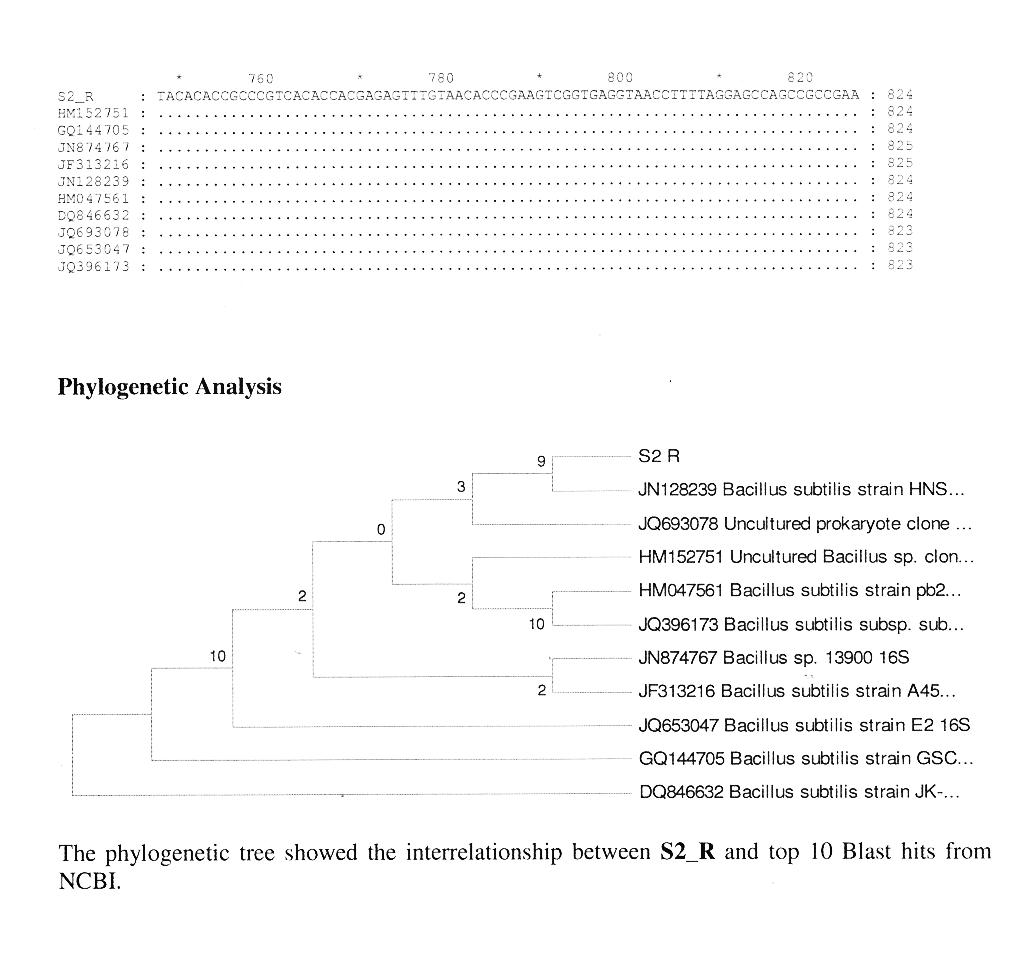












**Appendix B**

**Scanning of the cephalexin absorbance among different wavelengths**

**Figure B1** | The optimal absorbance of cephalexin among different wavelengths.

**Appendix C**

**Calibration curve of the cephalexin and cephalosporic acid**

**Figure C1** | Calibration curve of the cephalexin and cephalosporic acid in 0.1 M phosphate buffer: pH = 7.0, T = 30°C, λ = 340 nm.

One unit of β-lactamase concentration was defined as the amount of enzyme that could hydrolyse 1µmol of cephalexin at 30 °C and pH 7.0 in 1 min. The product of the hydrolysis reaction, cephalosporic acid, also gives an absorbance at 340 nm, therefore, the difference of the slopes is taken, y1-y2 = 0.2135 Aλ. The activity of enzyme, U mL-1 is given by ***1*U = A**λ **× 0.2135 ×** *Dilution factor.*