$2HCl + CaCO_3 \rightarrow CaCl_2 + H_2O + CO_2$

4.88 total mol HCl − excess mol HCl = mol HCl reacted

$$\text{mol } CaCO_3 = \frac{\text{mol HCl}}{2}$$

a) $\text{total mol HCl} = 1.035 \frac{\text{mol}}{L} \times 0.03005\ L$

$= 0.03105$ mol

b) $\text{excess mol HCl} = 1.010 \text{ mol NaOH} \times 0.1156 L$

$= 0.011676$ mol

$1HCl + 1NaOH \rightarrow H_2O + NaCl$

c) $\text{mol HCl reacted} = 0.03105 - 0.011676.$

$= 0.01937$ mol

d) $g\,CaCO_3 = \frac{0.0197 \text{ mol}}{2} \times 100.09 \frac{g}{\text{mol}}$

$= 0.96959 g$

e) $\% \text{ mass} = \frac{0.96957}{1.248} \times 100$

$= \boxed{77.690\%}$