Construct a molecular level diagram that shows what happens when the following reaction between lead (II) nitrate and *excess* sodium chloride takes place.

 $Pb^{2_{+}}_{(aq)} + 2NO_{3_{}(aq)}^{-} + 2Na^{+}_{(aq)} + 2Cl^{-}_{(aq)} \rightarrow PbCl_{2(s)} + 2Na^{+}_{(aq)} + 2NO_{3_{}(aq)}^{-}$ $Pb(NO_3)_{2(aq)}$ PbCl_{2(s)} + NaNO_{3(aq)} NaCl_(aq) +D D D A V V V V Ċ, Ċ, Ċ, Ċ, (Pb²⁺) (Pb²⁺) Ø Q V V V V 99 Y \mathcal{O} P (Pb2) 🔿 (NO₃) 💭 (Pb2) \mathbb{N}_{3} þ D Po ல ல ல A A A æ S. 99 Ś Ő, Ċ, 95 Ċ, Ő, 5 þ þ Pb2+ þ Pb2+ (N03-V 3 V 99 $\gamma \gamma$ (Pb²) Q þ \mathcal{O} \mathcal{O} \mathcal{O} \mathcal{O} D Po \mathcal{P} \mathcal{P} Po S A Do Do 99 V 95 C Ô Ċ, Ô Ô, Na⁺ Q Ç q V V V V 99 V γ V Na⁺ Na⁺ Q Ø Q \mathcal{O} \mathcal{D} þ \mathcal{P} C \mathcal{P} Þ ல þ \mathcal{D} \mathcal{A} \mathcal{A} A A V 99 Ч С 99 Ô, Ĉ, Ċ, Ő,) 🔊 δ)& (ci-) [cl-] Na⁺ Q V V 9 V \mathcal{O} V V \mathcal{O} °D (-) () 🕥 🔊 💞 Q Ŷ \mathcal{O} \mathcal{O} \mathcal{D} P þ P Do \mathcal{D} ூ A D A Do С С °C° V Ô °C° S. Ô Ċ, Q Q V V V V V 97 V 209 (Pb^2) (Na^{+}) (Na^{+}) (Na⁺) 🔘 Þ Do \mathcal{P} Þ \mathcal{D} ல 279 V æ A æ 9 Ô C Ċ, Na⁺ ð Na⁺ δ (N0,-) (NO3-) [c]ð NO, V æ V Do γ γ 📎 🔊 🔿 C \mathcal{O} \mathcal{O} \mathcal{O} Cl-Cl-Cl Cl-Þ Po Þ ல (Pb2+) Pb24 Pb² Pb2 \mathcal{A} Do D Q 99 3 99 රු 99 Ő, Ċ, Ġ, V V V V V 97F V Na⁺ Na⁺ Na⁺ Q Na⁺ ð Ò \Diamond \mathcal{P} \mathcal{P} \mathcal{O} Þ ல V 3 R A Na 🕐 Na⁺ Na+) (N0,-) A æ \mathcal{P}_{c} Æ $\overline{\mathcal{O}}$ Õ Cl Cl ð \mathcal{O} (Pb^{2+}) (Cl^{-}) (Pb^{2}) (Cl^{-}) (Pb^{2}) (Cl^{-}) (Pb^{2+}) (Cl^{-}) (Pb^{2+}) (Cl^{-}) (Pb^{2+}) (Pb^{2+}) Þ Cl-Cl Cl-P