Property		Formulation
$\left(\frac{\partial p}{\partial \varrho}\right)_T$	$=$	$TR\left[1+2\delta\alpha^{\mathrm{r}}_{\delta}+\delta^2\alpha^{\mathrm{r}}_{\delta\delta}\right]$
$\left(\frac{\partial p}{\partial T}\right)_\varrho$	$=$	$\varrho R\left[1+\delta\alpha^{\mathrm{r}}_{\delta}-\tau\delta\alpha^{\mathrm{r}}_{\tau\delta}\right]$
$\left(\frac{\partial s}{\partial \varrho}\right)_T$	$=$	$\frac{R}{\varrho}\left[-(1+\delta\alpha^{\mathrm{r}}_{\delta}-\tau\delta\alpha^{\mathrm{r}}_{\tau\delta})\right]$
$\left(\frac{\partial s}{\partial T}\right)_\varrho$	$=$	$\frac{R}{T}\left[-\tau^2(\alpha^{0}_{\tau\tau}+\alpha^{\mathrm{r}}_{\tau\tau})\right]$
$\left(\frac{\partial u}{\partial \varrho}\right)_T$	$=$	$\frac{TR}{\varrho}\left[\tau\delta\alpha^{\mathrm{r}}_{\tau\delta}\right]$
$\left(\frac{\partial u}{\partial T}\right)_\varrho$	$=$	$R\left[-\tau^2(\alpha^{0}_{\tau\tau}+\alpha^{\mathrm{r}}_{\tau\tau})\right]$
$\left(\frac{\partial h}{\partial \varrho}\right)_T$	$=$	$\frac{TR}{\varrho}\left[\tau\delta\alpha^{\mathrm{r}}_{\tau\delta}+\delta\alpha^{\mathrm{r}}_{\delta}+\delta^2\alpha^{\mathrm{r}}_{\delta\delta}\right]$
$\left(\frac{\partial h}{\partial T}\right)_\varrho$	$=$	$R\left[-\tau^2(\alpha^{0}_{\tau\tau}+\alpha^{\mathrm{r}}_{\tau\tau})+(1+\delta\alpha^{\mathrm{r}}_{\delta}-\tau\delta\alpha^{\mathrm{r}}_{\tau\delta})\right]$
$\left(\frac{\partial g}{\partial \varrho}\right)_T$	$=$	$\frac{TR}{\varrho}\left[1+2\delta\alpha^{\mathrm{r}}_{\delta}+\delta^2\alpha^{\mathrm{r}}_{\delta\delta}\right]$
$\left(\frac{\partial g}{\partial T}\right)_\varrho$	$=$	$R\left[-\tau(\alpha^{0}_{\tau}+\alpha^{\mathrm{r}}_{\tau})+(\alpha^{0}+\alpha^{\mathrm{r}})+(1+\delta\alpha^{\mathrm{r}}_{\delta}-\tau\delta\alpha^{\mathrm{r}}_{\tau\delta})\right]$