```
library(openair)

# Read in modeled and obsevered SO2 files
a <-read.csv(file="augusta_monitor.csv",head=FALSE,sep=",")
b <-read.csv(file="onsite.csv",head=FALSE,sep=",")
c <-read.csv(file="jeff_city.csv",head=FALSE,sep=",")

# Merge the two different modeled files (b&c)
mergebc <- merge(b,c,by=c("V9"))
mergebc$V11 <- paste(substr(mergebc$V9,1,8))

#Merge the modeled file with observation file
a$V11 <-
paste(substr(a$V2,3,4),sprintf("%02d",a$V3),sprintf("%02d",a$V4),sprintf("%02d",a$V5+1),sep="")
a$V10 <- a$V8*1000*2.62   # convert obs to ug/m3 to compare to model
mergeabc <- merge(mergebc,a,by=c("V11"))

# Create data file to plot
data <- data.frame(mergeabc$V11,mergeabc$V3.x,mergeabc$V3.y,mergeabc$V10)
colnames(data) <- c("date", "onsite", "Jeff_City", "obs")

# Q-Q plot comparing the use of on-site data with NWS Airport data
plot(sort(data[,4],decreasing=TRUE),sort(data[,4],decreasing=TRUE),type="l",log="xy",xlab="Observed
SO2(ug/m3)",ylab="Predicted SO2 (ug/m3)",main="Q-Q for Labadie",xlim=c(10,800),ylim=c(10,800))
points(sort(data[,4],decreasing=TRUE)[1:500],sort(data[,2],decreasing=TRUE)[1:500],pch=1,,col="red",ce
x=0.6)
points(sort(data[,4],decreasing=TRUE)[1:500],sort(data[,3],decreasing=TRUE)[1:500],pch=1,,col="green",
cex=0.6)
legend("topleft",c("On-site Augusta","NWS Jefferson City"), col=c("red","green"),pch=c(0,1))
abline(-0.3,1,lty=3)
abline(.3,1,lty=3)
```