



Wolf Eagle Environmental
"Advancing Industry while Protecting the Environment"



Dispersion Modeling of Emissions from Natural Gas Compressor Stations

**Town of DISH
Texas**

Wolf Eagle Environmental

December 2009

INTRODUCTION

Gaussian dispersion modeling is a widely used method for estimating atmospheric concentrations of air pollutants, given source emission rate information, meteorological data, and terrain data. The objective of this project was to conduct Gaussian dispersion modeling to estimate concentrations of air pollutants surrounding natural gas compressor stations located near Dish, Texas (see Fig. 1), to determine whether the potential exists for adverse impacts on human health. The compressor stations are not actually shown in Fig. 1, since they were installed after the aerial photo below was taken, but are located in the vicinity of the white rectangle. Pictures of the compressor stations have been published previously (Wolf Eagle Environmental, Sept. 2009).

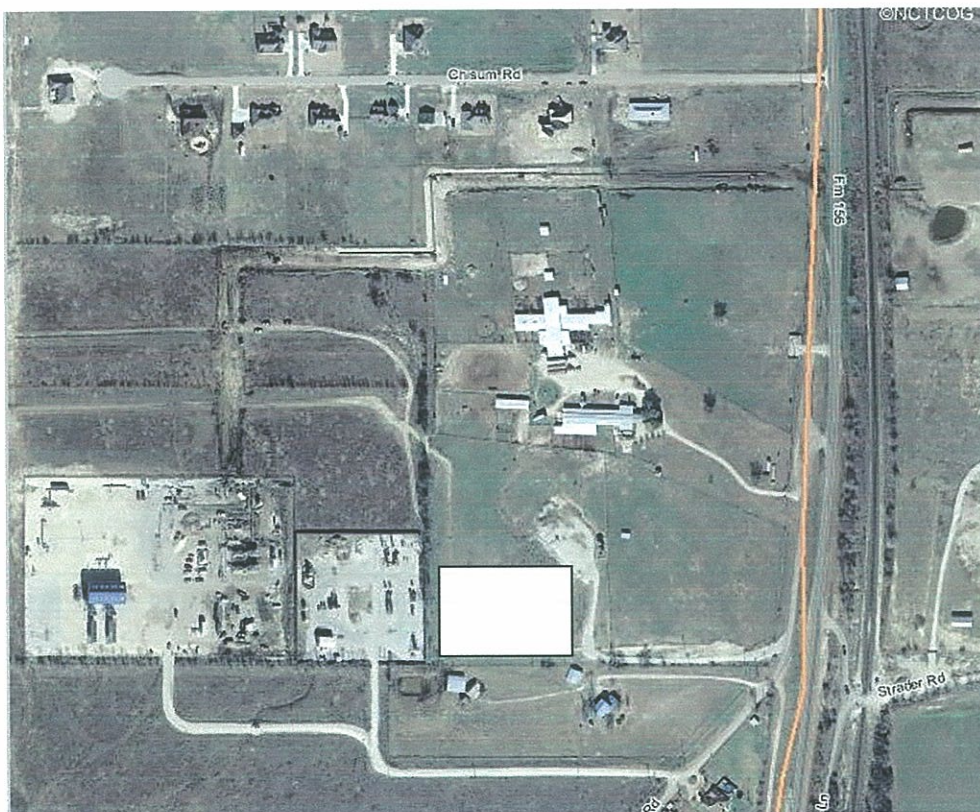


Fig. 1. Location modeled near Dish, Texas

The compressor stations are owned by 5 different entities (Crosstex, Chesapeake, Atmos, Energy Transfer, and Enbridge). The stations contain multiple compressor engines ranging in size from 1231 to 3500 hp, as well as support equipment that emits fugitive emissions (condensate tanks, truck rack, site fugitive, and compressor blowdown emissions).