



New Mexico Environment Department

Waste Isolation Pilot Plant NMED Sampling Activities

DOE Town Hall Meeting

Carlsbad, New Mexico

Thursday, August 21, 2014

Overview

- NMED's Role at WIPP
- DOE Oversight Bureau Environmental Monitoring at WIPP and Vicinity
- NMED Ambient Air Data
- NMED Gama Radiation Monitoring

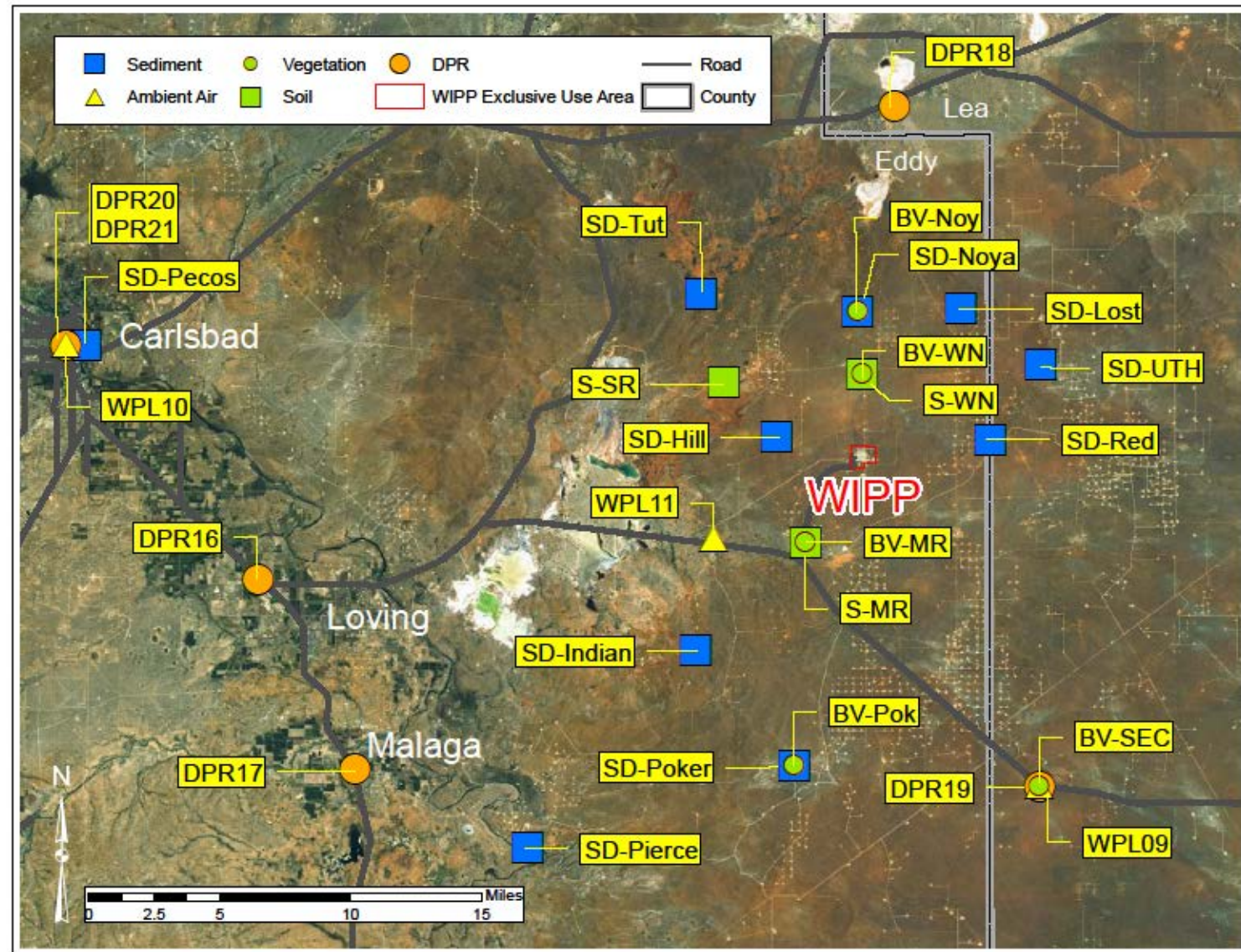
NMED's Role at WIPP

- **DOE Oversight Bureau (DOE-OB)**
- Hazardous Waste Bureau (HWB)
- Air Quality Bureau (AQB)
- Ground Water Quality Bureau (GWQB)
- Radiation Control Bureau (RCB)
- Environmental Health Bureau (EHB)

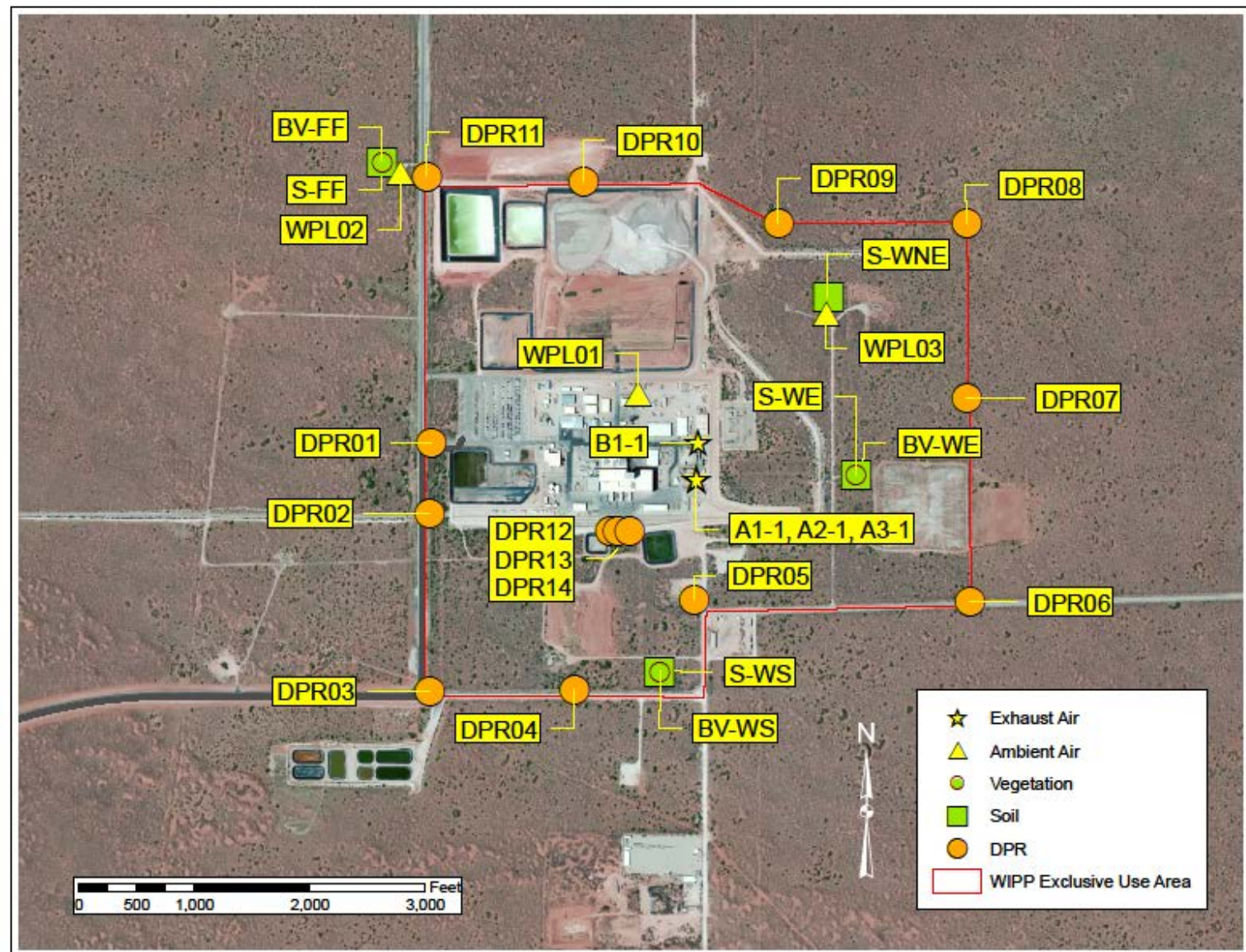
DOE Oversight Bureau Environmental Monitoring at WIPP and the Vicinity

- Exhaust Air, Stations A and B
- Ambient Air
- General Environmental
 - Soil
 - Sediment
 - Surface water
 - Vegetation
- Penetrating radiation (gamma)

NMED Sampling Locations (regional)

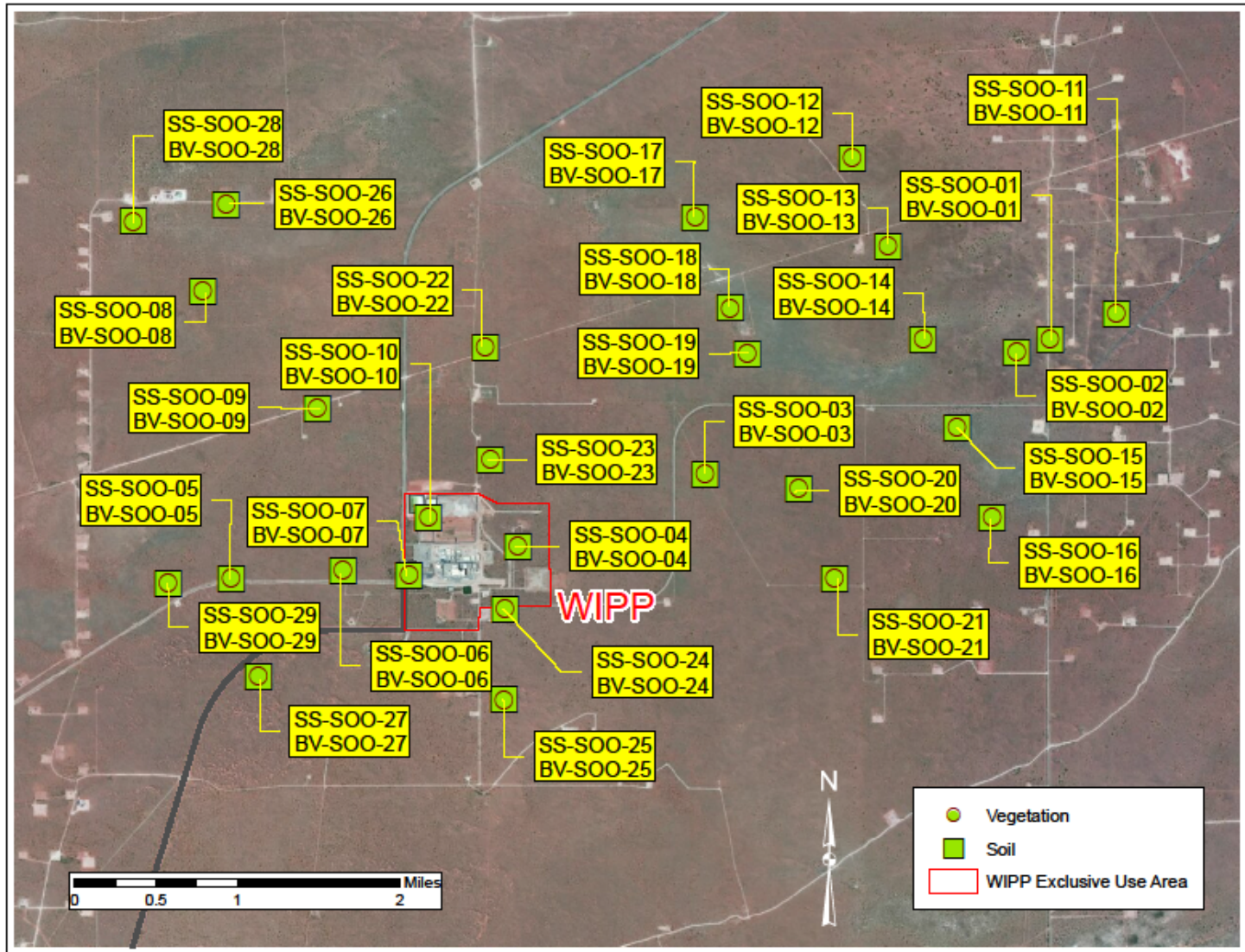


NMED Sampling Locations (WIPP)



NMED Sampling Locations

(modeled plume)



Exhaust Air, Stations A & B

- Data reduction and review
 - January and February 2014. Station A, Station B, QC samples
 - March, Station B, QC samples
- Samples are at analytical laboratory for isotopic analysis
 - March, Station A, QC samples
 - April and May, Station A, Station B, QC samples
- Inventorying and preparing for shipment to analytical laboratory
 - June, July and August, Station A, Station B, QC samples
- 158 filter samples (individual and composite) have been submitted for isotopic analyses.

Ambient Air Monitoring

- Final data submittal released
 - February 21 to 28, 2014
 - February 28 to March 11, 2014
 - March 11 to 25, 2014
 - April 2014
 - May 2014
- June 2014 samples are at analytical laboratory for isotopic analysis
- A total of 40 samples have been submitted for isotopic analyses
- Starting July 1, resumed quarterly sample composites and analysis

Solar-Powered Ambient Air Monitor



General Environmental Monitoring

- 6 sediment samples (and 1 duplicate) were submitted for isotopic analysis
- 3 surface water samples (and 1 duplicate) were submitted for isotopic analysis
- 16 surface soil samples (and 2 duplicates) and 16 vegetation samples (and 2 duplicates) from the modeled plume area were submitted for isotopic analysis
- Data is undergoing review

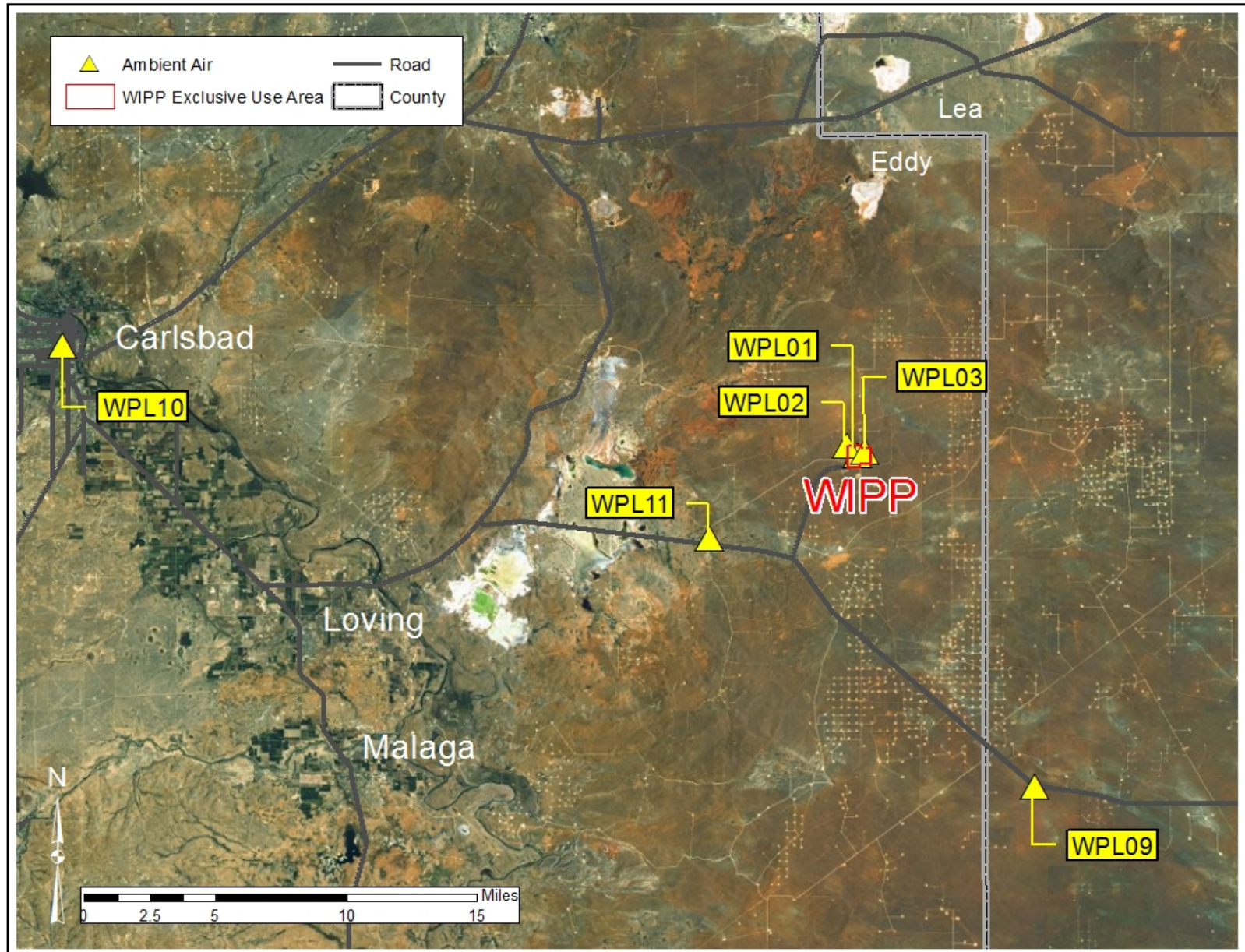
Penetrating Radiation Monitoring

- January to March 2014
- April to June 2014
- A total of 20 locations are sampled

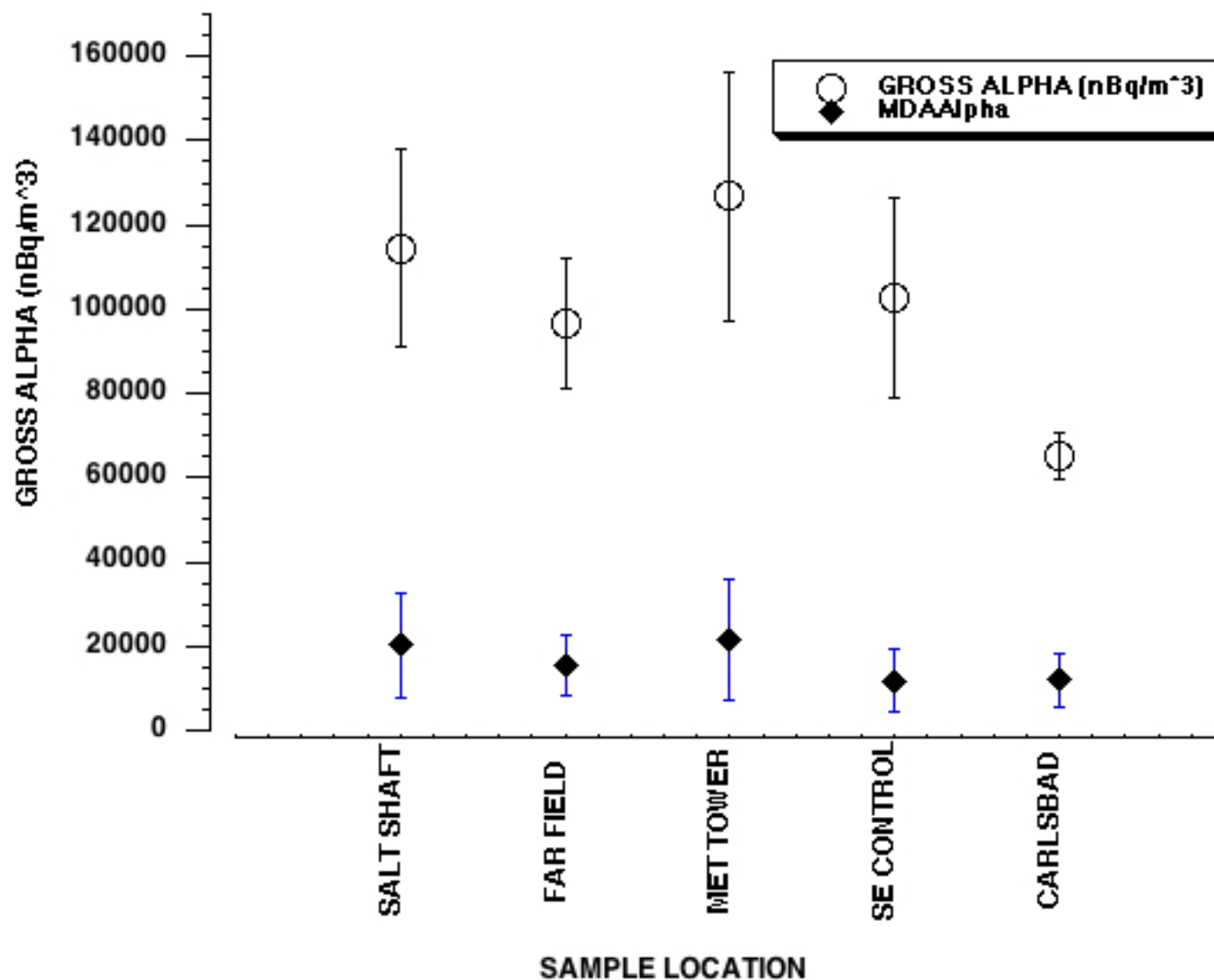
What Does the Data Tell Us?

- Extent of contamination in the environment
- Impact of the event on the environment
- Potential impact on human health
- Provide correct information to policy makers

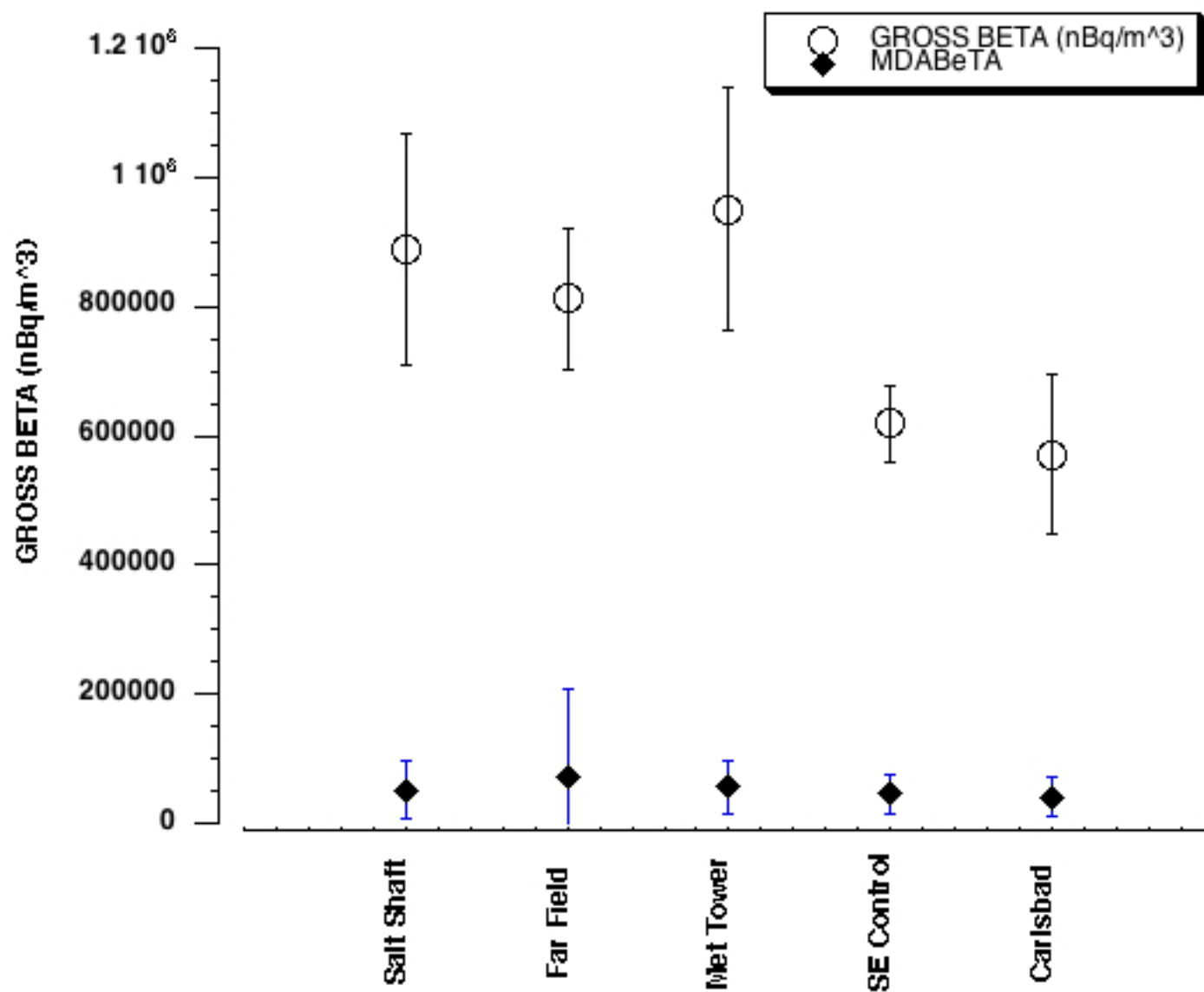
NMED Ambient Air Monitoring



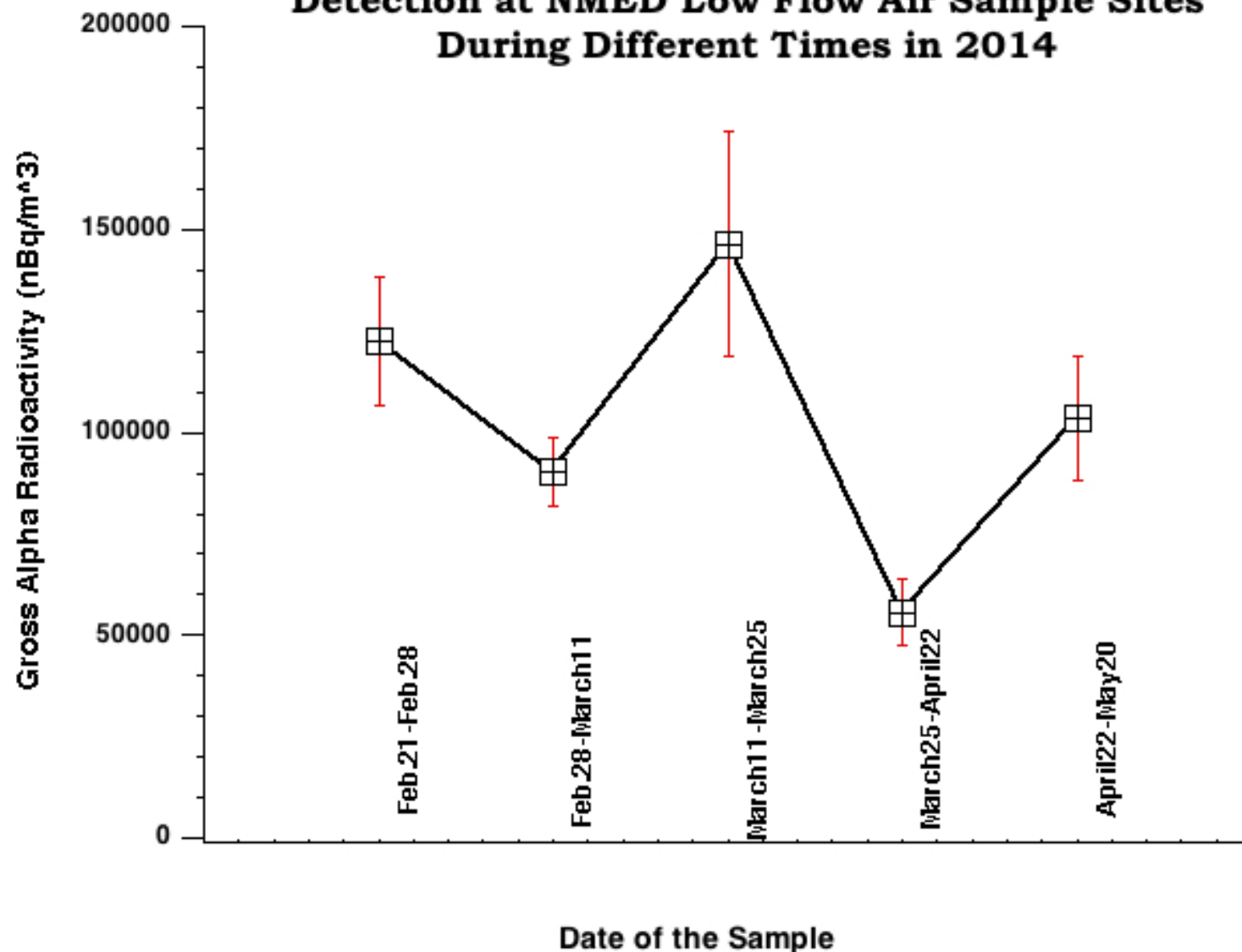
A Comparison of Gross Alpha Radiation Detection Among NMED Low Flow Air Sample Sites



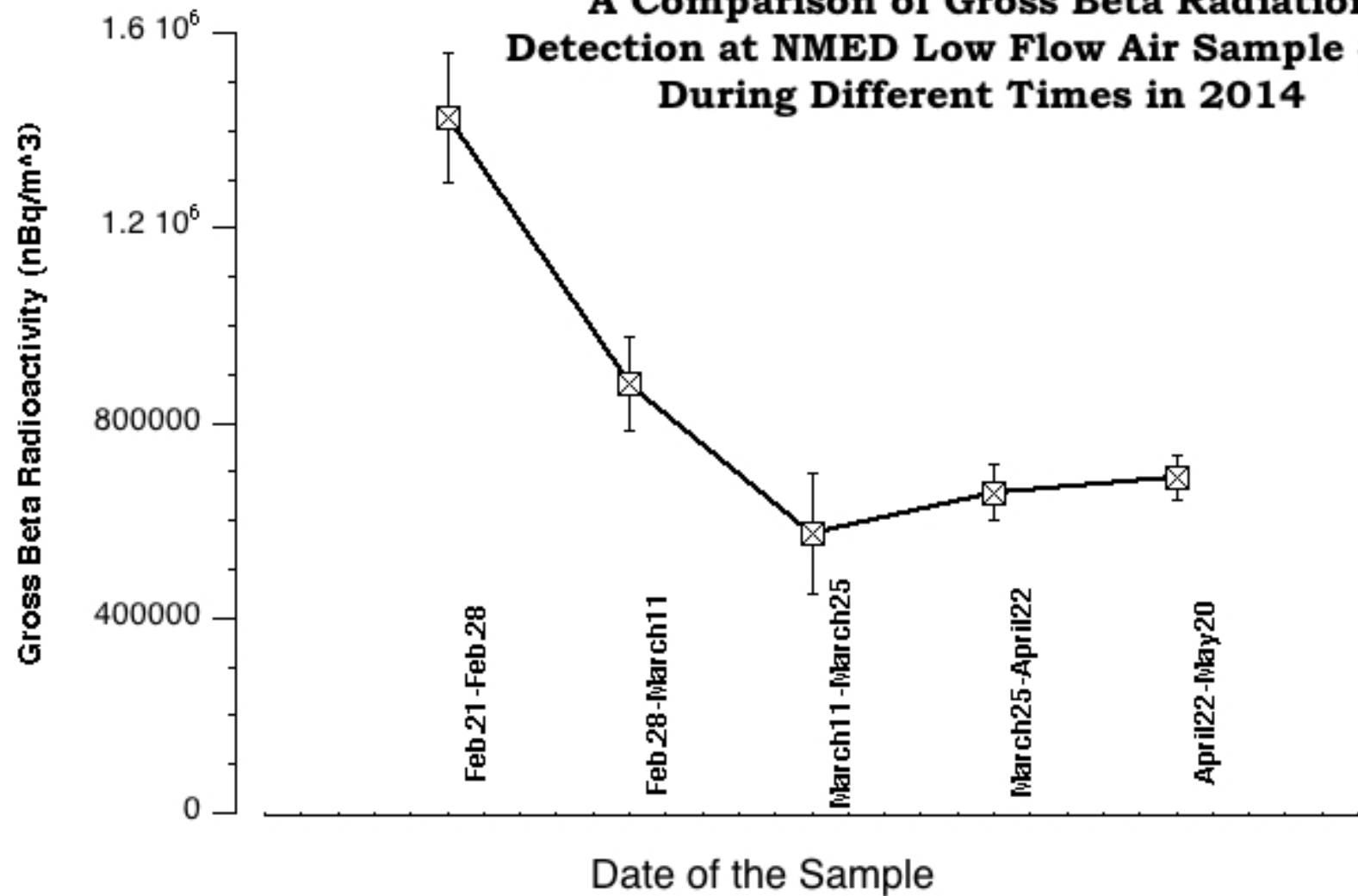
A Comparison of Gross Beta Radiation Detection Among NMED Low Flow Air Sample Sites



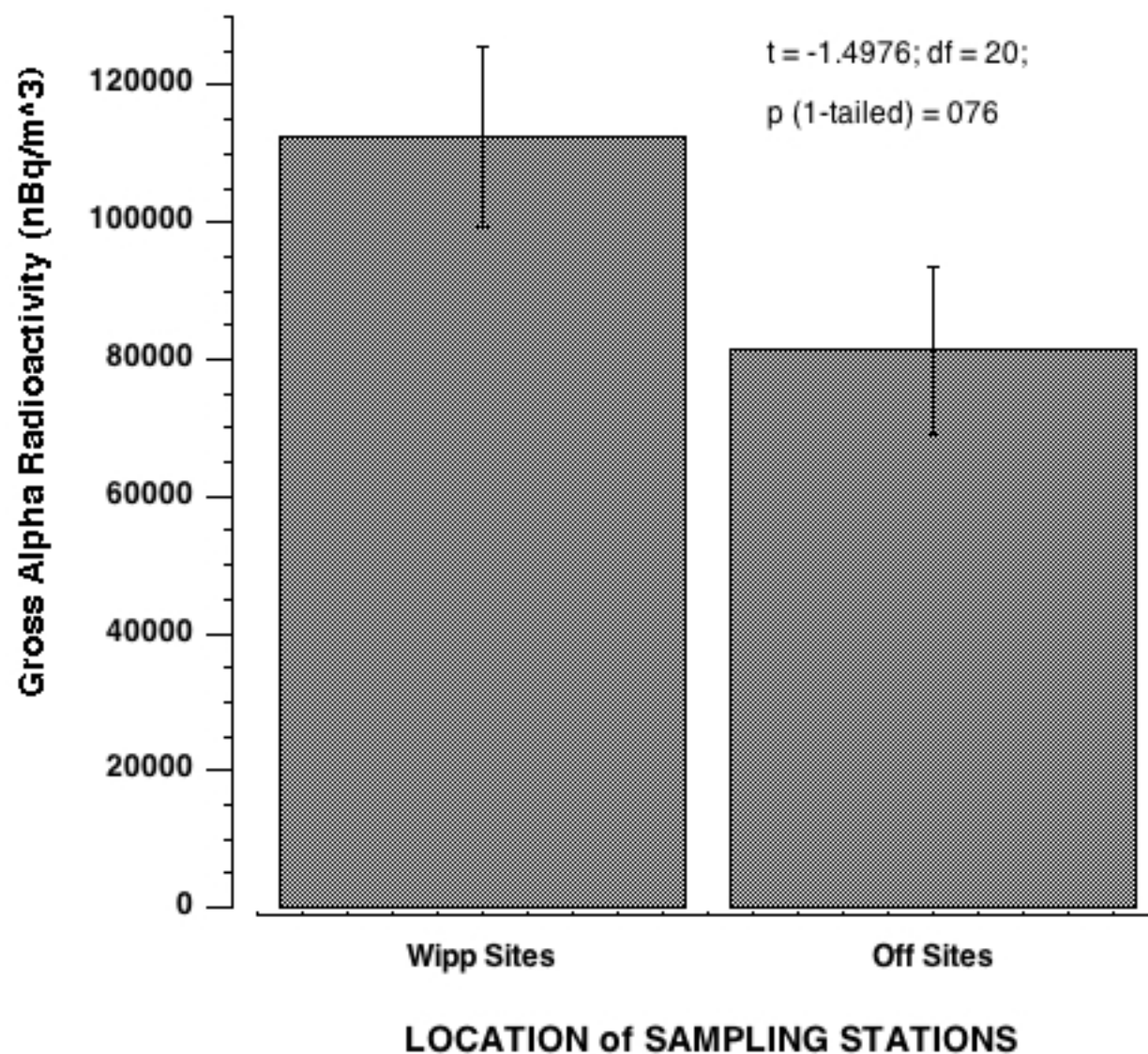
**A Comparison of Gross Alpha Radiation
Detection at NMED Low Flow Air Sample Sites
During Different Times in 2014**



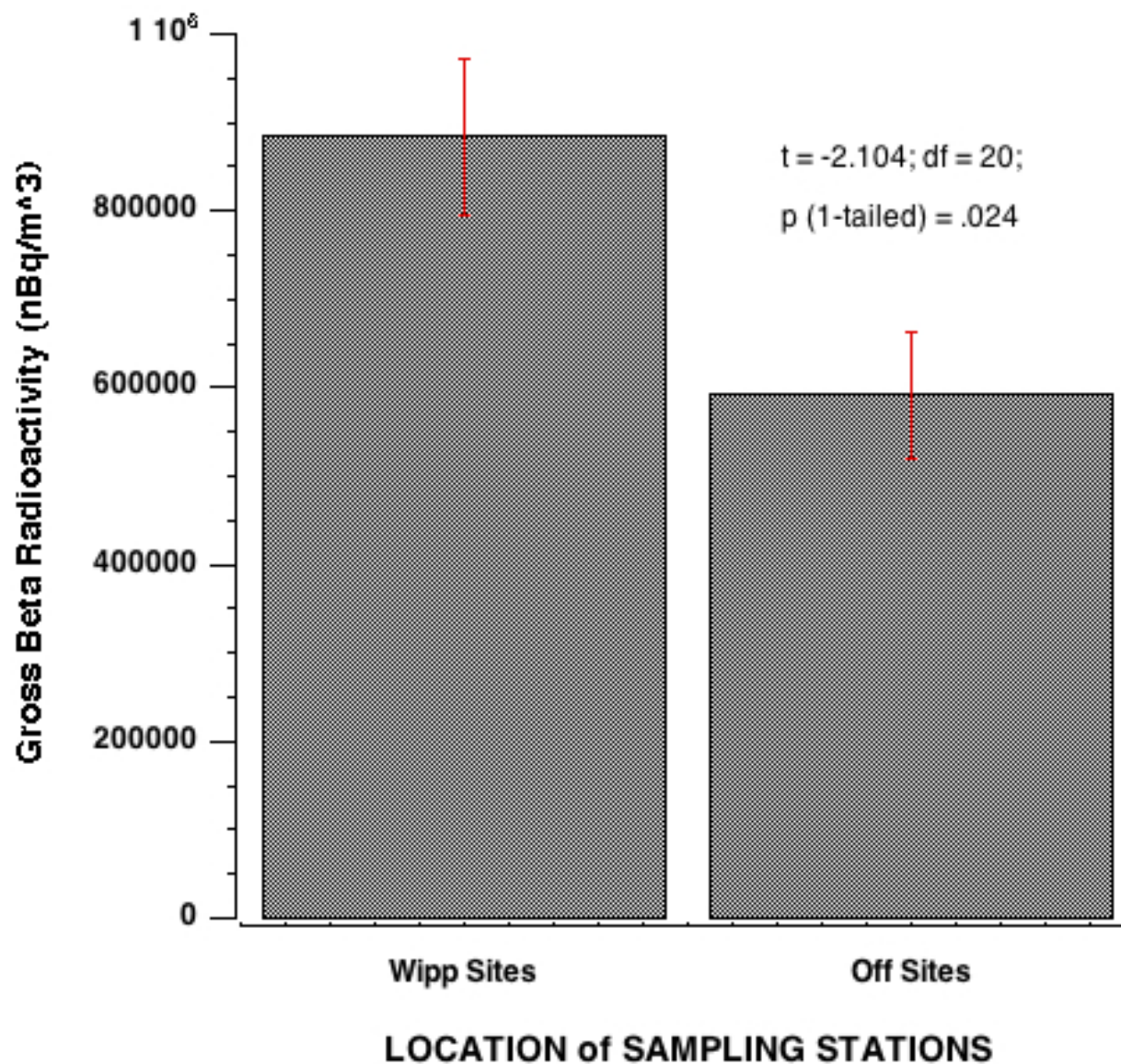
**A Comparison of Gross Beta Radiation
Detection at NMED Low Flow Air Sample Sites
During Different Times in 2014**



A Comparison of Gross Alpha Radiation Detection at NMED Low Flow Air WIPP Sample Stations versus Off Site Stations



A Comparison of Gross Beta Radiation Detection at NMED Low Flow Air WIPP Sample Stations versus Off Site Stations



For more information

- NMED Rad Release Event Page
 - <http://www.nmenv.state.nm.us/NMED/Issues/WIPP2014.html>
- NMED WIPP Permit Information Page
 - <http://www.nmenv.state.nm.us/wipp/>
- DOE OB Page
 - http://www.nmenv.state.nm.us/DOE_Oversight/

Questions?

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