

Arvin/Lamont Community Air Monitoring Options

Arvin/Lamont CSC
Air Monitoring Subcommittee Meeting

October 27, 2021

PM2.5 Monitor

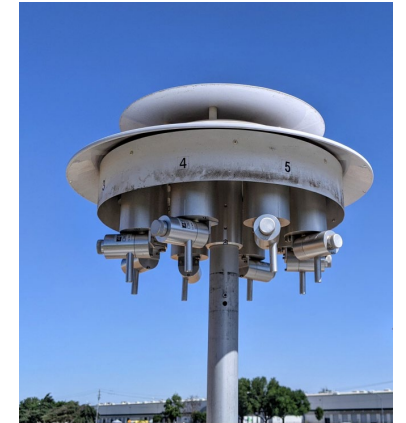
How much PM2.5 is in the air?

- Provides real-time hourly PM2.5 concentration measurements



PM2.5 Laboratory Analysis: What type of source emitted or created PM2.5?

- Collected samples sent to laboratory for analysis to determine contribution of various species to overall measured PM2.5 concentration
- Speciation results can help determine which sources may be contributing to overall PM2.5 pollution



VOC Laboratory Analysis

What type of source emitted VOCs?

- Collected samples sent to third-party laboratory for analysis to determine various specific VOC detected in atmosphere
- Capable of isolating 86 different VOCs from each air sample



Compact Multi-Pollutant Air Monitoring System

- Combined placed on trailer
- Provides real-time measurement of the following:



PM2.5



Black Carbon



BTEX and Total VOC



SO2



H2S



NO2



Ozone



Air Monitoring Trailer

- Usually combined with VOC and PM Sampling for lab analysis
- Provides real-time measurement of the following:



PM2.5



Black Carbon



BTEX



SO2



H2S



NO2



Ozone



Air Monitoring Van

Provides real-time measurement of the following:



PM2.5



Black Carbon



BTEX



SO2



H2S



NO2



Ozone



Summary of Monitoring Options

	Real Time Reporting	Regulatory Quality	PM2.5	NOx	VOC	Diesel PM	Other Toxics
PM2.5 Monitor	✓	✓	✓				
Compact System with Multiple Monitors	✓	✓	✓	✓	Total VOCs	✓	BTEX
Large Air Monitoring Trailer	✓	✓	✓	✓	VOC Species	✓	Additional Toxics, BTEX
Air Monitoring Van		✓	✓	✓		✓	BTEX
Low Cost Air Sensors	✓		✓				
VOC and PM2.5 Speciation		✓	PM2.5 Species		VOC Species		

Next Steps

Today

Feedback and questions on air monitoring options

Before Next Meeting

Review air monitoring options

Next Meeting

Exercise to place air monitors

Comments/Questions?