

PAWG UPDATE 2011

Air Quality Division

PAWG Meeting

February 3, 2011

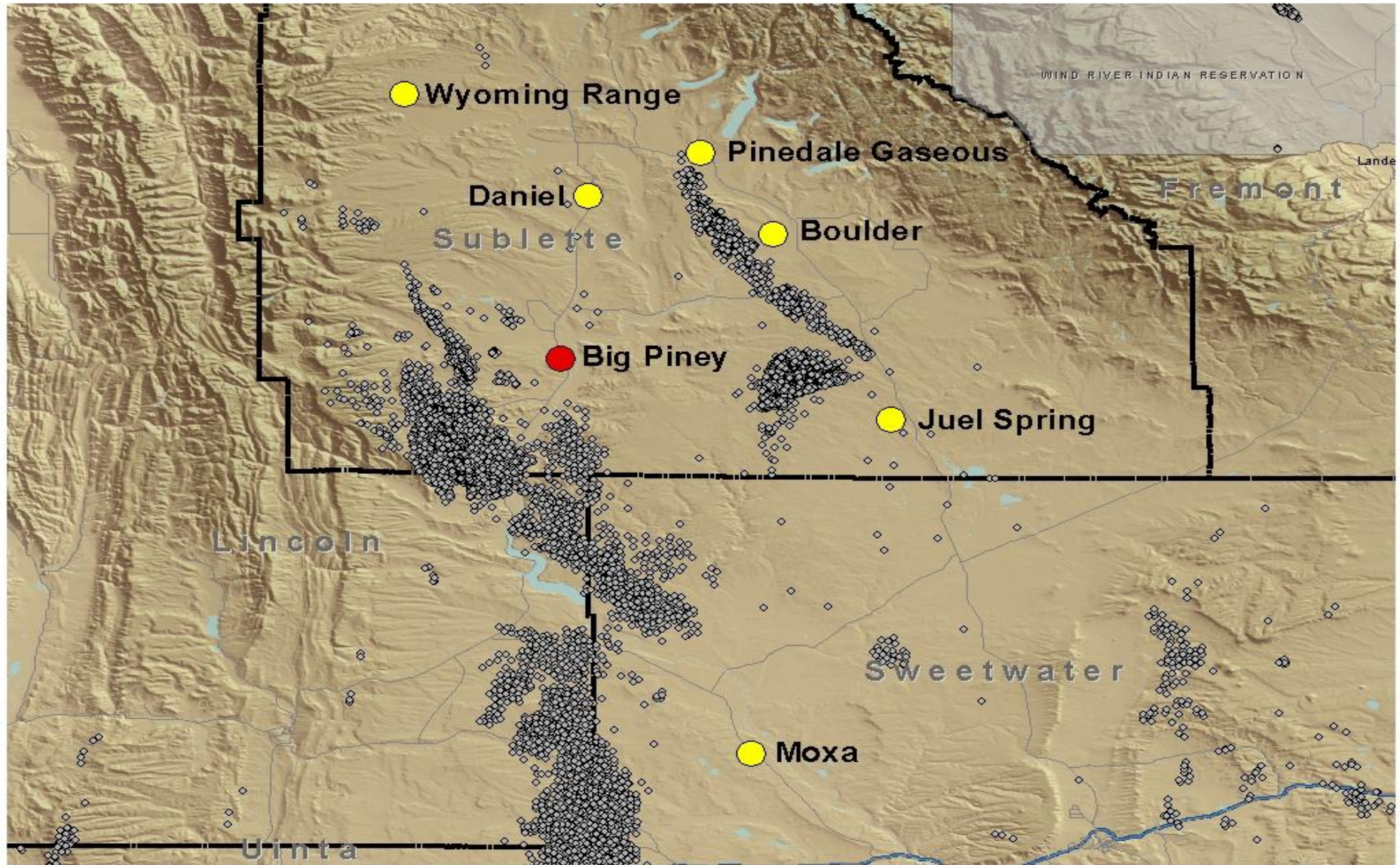
PAPO Funded AQD Staff

- Brandi O'Brien –
 - Principal Engineer for the Pinedale Anticline Project Office
 - Compliance Program
 - Stationed in Pinedale
 - Compliance inspector for PAPA field
 - Assist as operator for monitoring projects
 - Funded for up to 5 years; began work in Jan. 2011
- Ryan McCammon
 - Upper Green Data Analyst
 - Air Quality Resource Management Program – Monitoring Section
 - Stationed in Cheyenne
 - Data analysis and monitoring project manager for ambient and met. Stations in UGRB
 - Funded for up to 2 years; began work in Feb. 2010

Air Quality Monitoring Activities



Long Term Sites



0 5 10 20 Miles

○ 2009 Oil, Gas & CBM Production Well Locations

● Active Monitoring Locations

● Planned Monitoring Locations



Long Term Monitoring

- Six (6) long term stations
- All stations have ozone, oxides of nitrogen, meteorology, and a camera
- Stations may have other parameters (e.g. particulate, sulfur dioxide, etc.) depending on station objective
- One mobile trailer will be parked south of Big Piney for 1 year beginning in February
- Real-time and validated data available on www.wyvisnet.com
- In attainment for all sites and parameters except for Boulder-ozone

PAPO funded monitoring

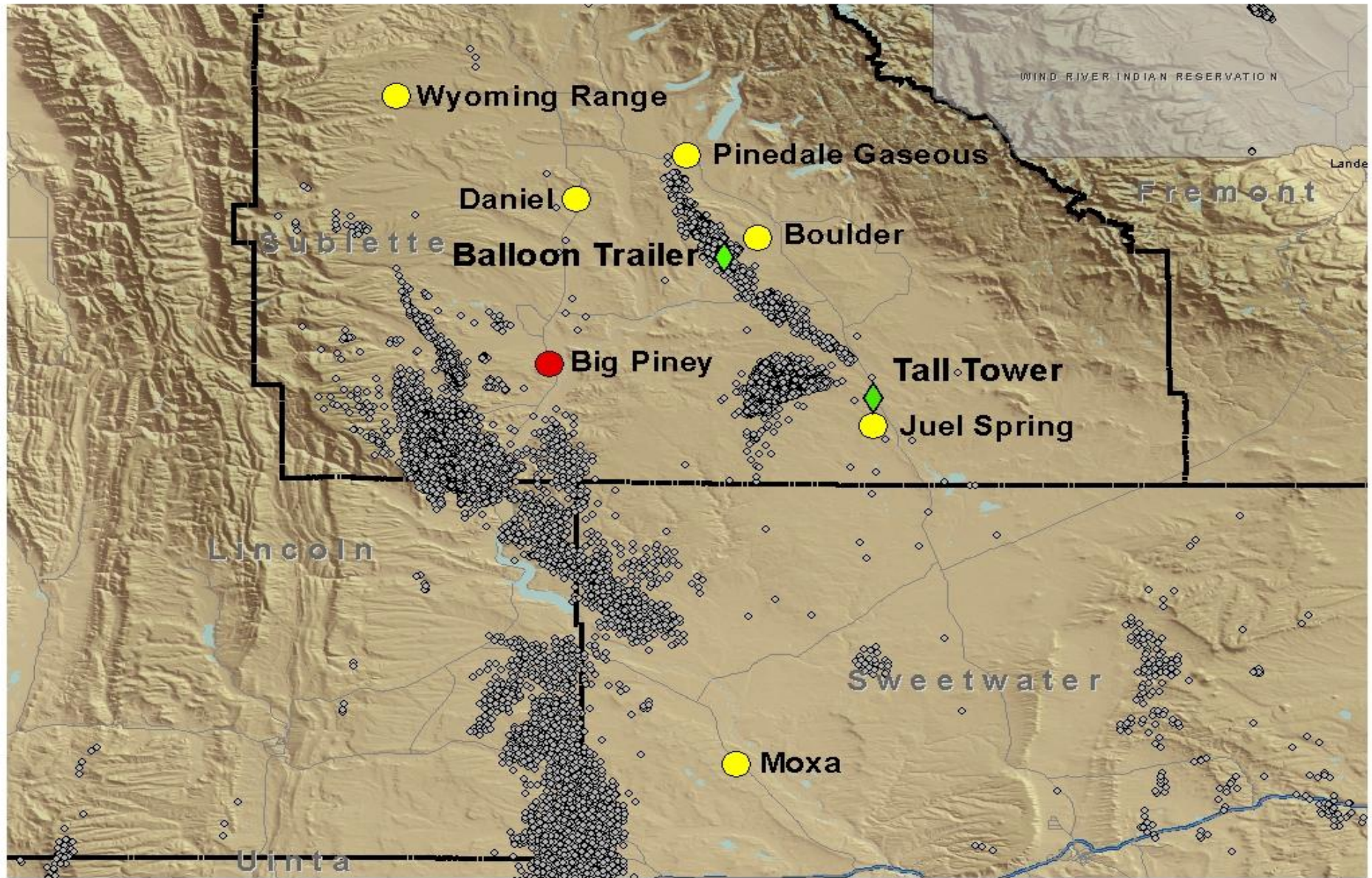
- Boulder Station
 - Hydrocarbon analyzer with canisters for speciation
 - Year-long speciated particulate study on EPA schedule w/ episodic sampling
 - Enhanced NO_x monitoring



Upper Green Winter Ozone Study 2011

- Focus on vertical distribution of precursors
- Contractors: MSI; T&B Systems; U of Houston; Environ
- Operation between Jan. 15 and March 31
- Balloons will be deployed during IOPs; rest of equipment is continuous
- Results of UGWOS in PAPA field used to help guide upgraded monitoring with PAPO funds

Winter Study Sites



0 5 10 20 Miles

- 2009 Oil, Gas & CBM Production Well Locations
- Active Monitoring Locations
- Planned Monitoring Locations

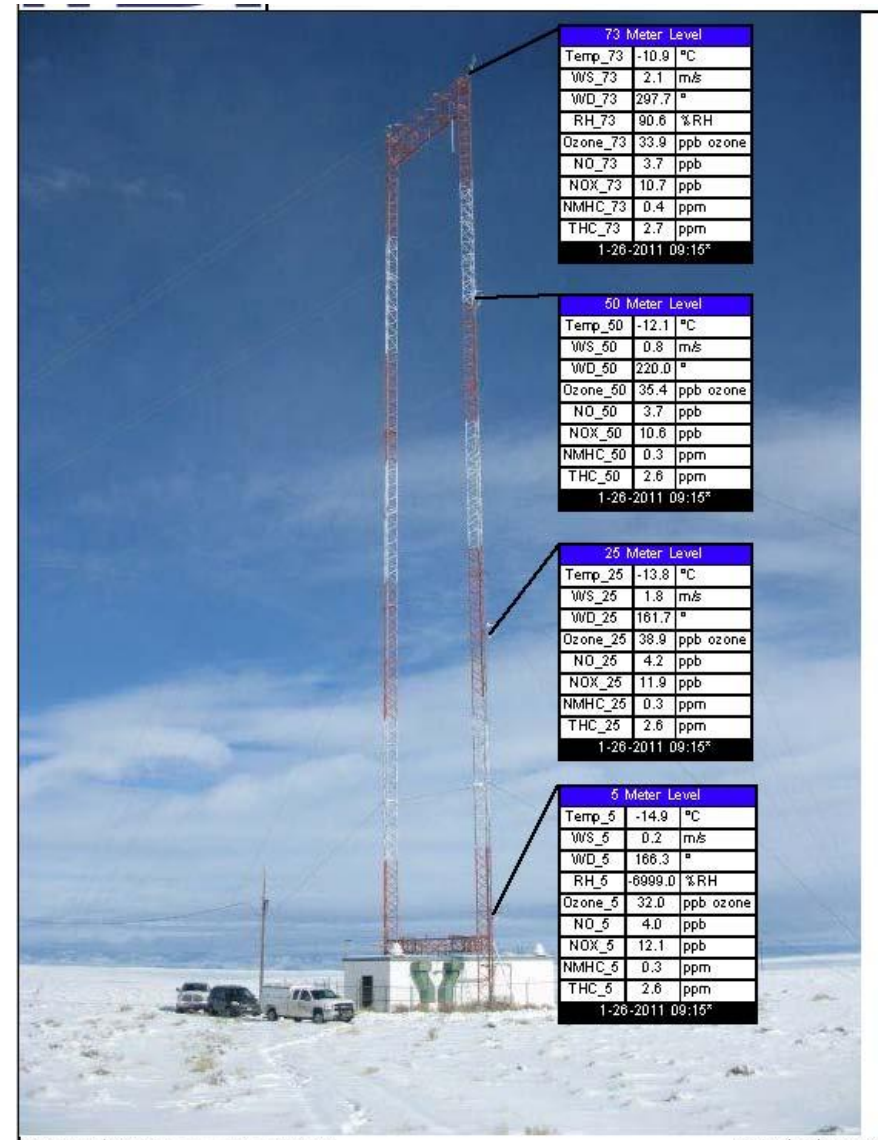


Tall Tower and Balloon Trailer



Tall Tower

- AQ: ozone, NO_x, methane/NHMC
- Met.: Wind speed, direction, temp, rel. humidity
- Four levels: 73m; 50m; 25m; 5m
- Continuous for whole study period



Tethered Balloons

- AQ: Ozone, NO_x, methane/NMHC, speciated VOCs
- Met: Temp., rel. humidity
- 4 levels: 100m, 67m, 33m, 5m
- 12 min. cycle through 4 levels
- IOPs; two 3-day episodes



HONO/HCHO at Boulder

- Precursor monitoring
- Continuous
- Samples at ground and 2 m
- Sample for 15 min. each



Mini-SODAR and Soundings

- Mini-SODAR to measure winds in vertical structure



- Soundings measure temperature, humidity, and ozone in vertical structure



OZONE CONTINGENCY PLAN (OCP)

- All operators on the Anticline are involved as a condition specified by the Record of Decision.
- Plans are initiated when AQD issues a health based ozone advisory.
- 2011 OCPs have been standardized, but are not restrictive. The AQD encourages the inclusion of any new activities.
- Annual OCP: Indicates measures ANTICIPATED to be completed.
- Event Summary: Indicates measures ACTUALLY completed.
- Anticipated to give us a better idea which activities were, or were not completed on the day of an advisory.

- The winter season began January 3 and will run through April 1.
- 2011 operator plans can be viewed online on BLM's Pinedale Office website.
- http://www.blm.gov/wy/st/en/field_offices/Pinedale/anticline.html
- OCP templates can be viewed online on WDEQ-AQD's website.
- <http://deq.state.wy.us/aqd/Ozone%20Main.asp>

Air Toxics Status Update

- Sublette County Commissioners, Department of Health, and Department of Environmental Quality Study
- Sampling conducted at 14 sites for air toxics and 5 sites for ozone
- Sampling conducted from February 2009-March 2010
- Data and results of sampling study found at:
http://deq.state.wy.us/aqd/Ozone%20Air%20Toxics_Sublette%20County.asp
- Health Risk Assessment is in review stage

Questions?

2/19/08



1/26/11

