

WYODAK MINE

06/05/12

**AMBIENT AIR EXCEEDANCE
DOCUMENTATION**

08/28/12

Mueller, Stevan

From: Mueller, Stevan
Sent: Tuesday, August 28, 2012 4:02 PM
To: Tanner Shatto (tanner.shatto@wyo.gov); kirk.billings@wyo.gov
Subject: Monitoring Exceedance

Tanner, Kirk,

The Wyodak Mine recorded a 24-hour PM₁₀ concentration of 237 ^{ug}/m³ on June 5th. This exceeds the permit limit of 150 ^{ug}/m³. The winds averaged 27.4 MPH from the SSE with a maximum gust of 34.9 MPH. We are reviewing the information and will advise you early next week whether we will attempt to flag this event under the NEAP program. To my knowledge this is the first recorded PM₁₀ exceedance at the mine site.

Steve

09/07/12



Wyodak Resources Development Corp.

3338 GARNER LAKE ROAD
GILLETTE, WYOMING 82716

PHONE (307) 682-3410
FAX (307) 682-0208

September 7, 2012

Mr. Tanner Shatto
Department of Environmental Quality
Air Quality Division
2100 W 5th Street
Sheridan, Wyoming 82801

Mr. Kirk Billings
Department of Environmental Quality
Air Quality Division
510 Meadowview Drive
Lander, Wyoming 82520

Re: 06/05/12 Air Quality Exceedance, Wyodak Mine

Dear Tanner & Kirk:

The Site 1 TEOM at the Wyodak Mine recorded a 24-hour PM₁₀ average of 237 ug/m³ on June 5, 2012, which exceeds the 24-hour National Ambient Air Quality Standard of 150 ug/m³. The following information related to this event is attached:

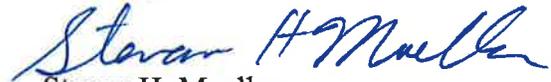
- 06/05/12 meteorological data summary
- 06/05/12 wind rose
- 06/05/12 comparison of average wind speed & PM₁₀ concentrations
- 06/05/12 relative frequency table
- 06/05/12 TEOM PM₁₀ pollution rose
- 06/05/12 relative frequency table
- 06/05/12 PM₁₀ hourly averages
- 06/05/12 Production Foreman's log

The wind speed on June 5th averaged 27.4 mph, with a maximum hourly average of 34.9 mph and a minimum hourly average of 17.2 mph. The prevailing wind was out of the SSE, placing Site 1 directly downwind of mining activities. The Production Foreman's log documents the concern and the effort to control the fugitive emissions by placing all three water trucks in the field. The elevated PM₁₀ concentrations throughout the day were clearly the result of the high winds and were beyond the control of the mine. Wyodak is requesting that the WDEQ/AQD flag this exceedance as an exceptional event under

40CFR 50.14. No further exceedances have been noted since the data was last downloaded on August 22, 2012.

Please call me if you have any questions or need additional information.

Sincerely,



Stevan H. Mueller

Wyodak Mine

Meteorological Data Summary

6/5/2012 - 6/5/2012

Hourly Data

| | Average/Total | Max | Min |
|-----------------------|----------------------|------------|------------|
| Wind Speed (mph) | 27.4 | 34.9 | 17.2 |
| Sigma-Theta (°) | 7.7 | 22.0 | 5.1 |
| Temperature (F) | 76.6 | 87.5 | 65.0 |
| Relative Humidity (%) | 33.1 | 50.6 | 18.9 |
| Precipitation (in) | 0.08 | 0.08 | |

Predominant wind direction was from the SSE sector,
accounting for 58.3% of the possible winds

Data Recovery

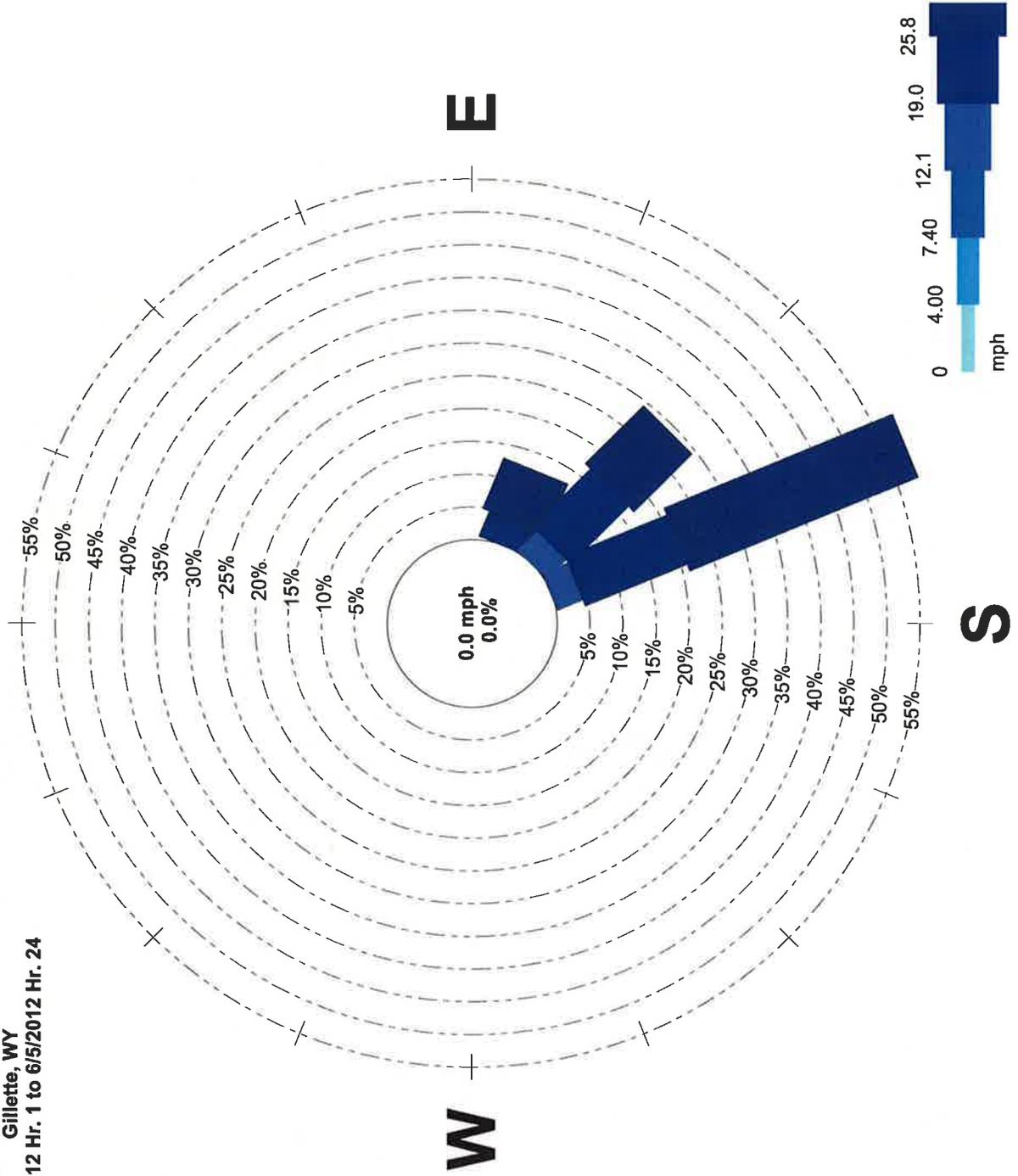
| Parameter | Possible (hours) | Reported (hours) | Recovery |
|-------------------|-----------------------------|-----------------------------|-----------------|
| Wind Speed | 24 | 24 | 100.00% |
| Wind Direction | 24 | 24 | 100.00% |
| Sigma-Theta | 24 | 24 | 100.00% |
| Temperature | 24 | 24 | 100.00% |
| Relative Humidity | 24 | 24 | 100.00% |
| Precipitation | 24 | 24 | 100.00% |

Wind Rose -- June 5, 2012

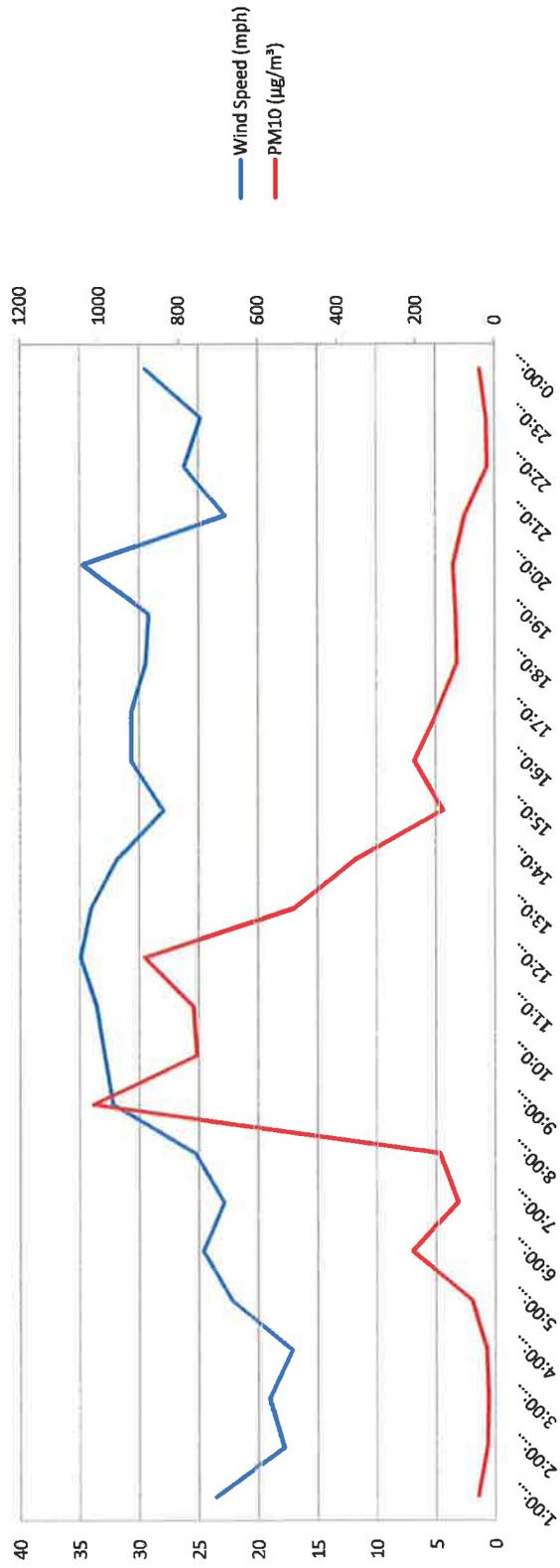
Wyodak Mine

Gillette, WY

6/5/2012 Hr. 1 to 6/5/2012 Hr. 24



Wind and Particulate June 5th, 2012



Wind Rose -- June 5, 2012

Wyodak Mine

Gillette, WY

6/5/2012 Hr. 1 to 6/5/2012 Hr. 24

RELATIVE FREQUENCY (% of Recorded Winds) TABLE

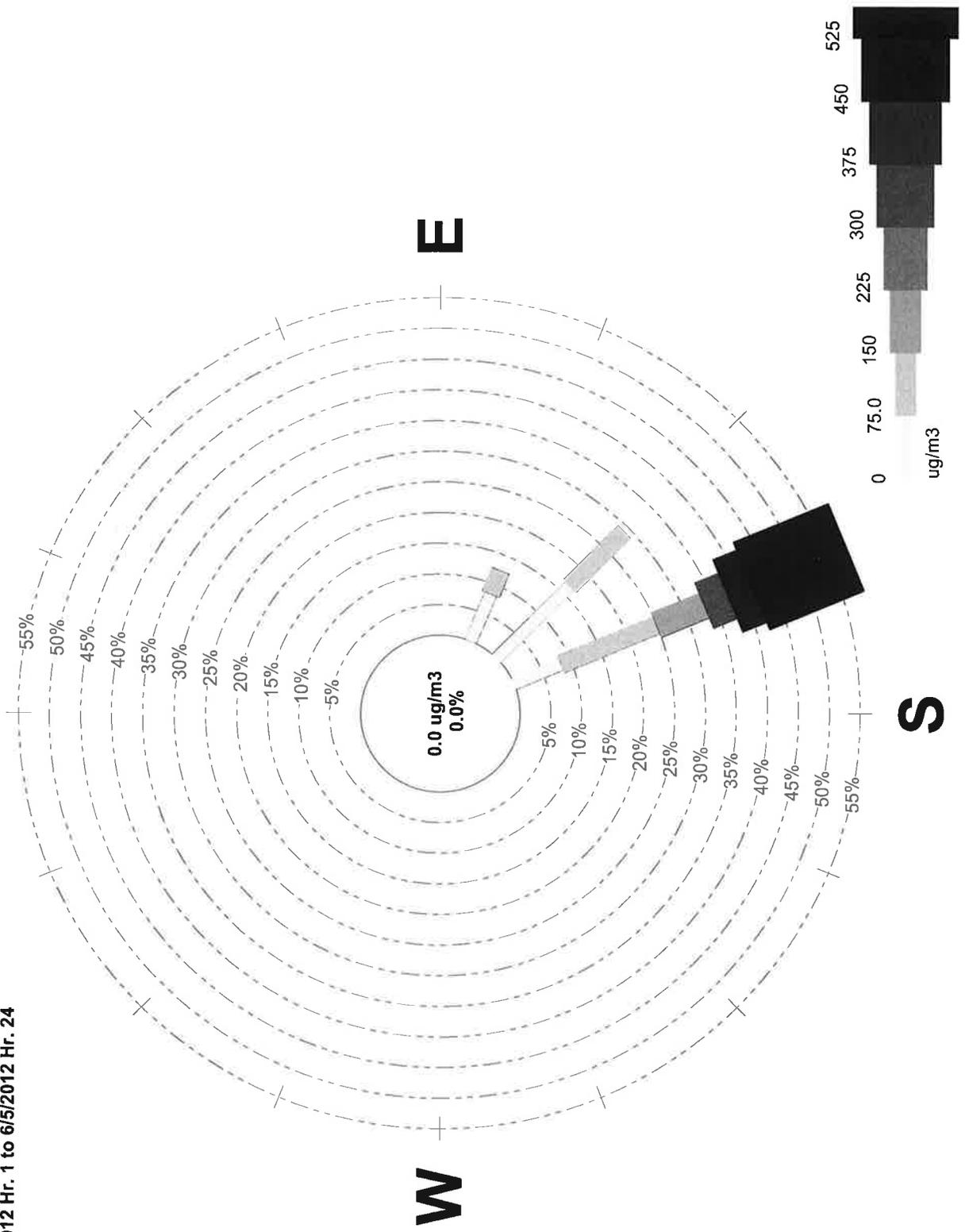
| Wind Direction | 0.0-4.0 | 4.0-7.4 | 7.4-12.1 | 12.1-19.0 | 19.0-25.8 | 25.8-100.0 | Row Total |
|-----------------|---------|---------|----------|-----------|-----------|------------|-----------|
| 0.0 deg.(North) | | | | | | | 0.0 |
| 22.5 deg. | | | | | | | 0.0 |
| 45.0 deg. | | | | | | | 0.0 |
| 67.5 deg. | | | | | | | 0.0 |
| 90.0 deg. | | | | | | | 0.0 |
| 112.5 deg. | | | | 4.2 | 4.2 | 8.3 | 12.5 |
| 135.0 deg. | | | | 4.2 | 12.5 | 12.5 | 29.2 |
| 157.5 deg. | | | | 4.2 | 16.7 | 37.5 | 58.3 |
| 180.0 deg. | | | | | | | 0.0 |
| 202.5 deg. | | | | | | | 0.0 |
| 225.0 deg. | | | | | | | 0.0 |
| 247.5 deg. | | | | | | | 0.0 |
| 270.0 deg. | | | | | | | 0.0 |
| 292.5 deg. | | | | | | | 0.0 |
| 315.0 deg. | | | | | | | 0.0 |
| 337.5 deg. | | | | | | | 0.0 |
| | 0.0 | 0.0 | 0.0 | 8.3 | 33.3 | 58.3 | 100.0 |

0 mph (0.0%) INVALID READINGS 0

NUMBER OF POSSIBLE READINGS 24 VALID READINGS 24 DATA CAPTURE 100.00%

TEOM PM-10 Pollution Rose Wyodak Mine - 1 Site TEOM

6/5/2012 Hr. 1 to 6/5/2012 Hr. 24



TEOM PM-10 Pollution Rose
Wyodak Mine - 1 Site TEOM
 6/5/2012 Hr. 1 to 6/5/2012 Hr. 24

RELATIVE FREQUENCY (% of Recorded Winds) TABLE

| Wind Direction | 0.0-75.0 | 75.0- 150 | 150- 225 | 225- 300 | 300- 375 | 375- 450 | 450- 525 | 525-above | Row Total |
|-----------------|----------|-----------|----------|----------|----------|----------|----------|-----------|-----------|
| 0.0 deg.(North) | | | | | | | | | 0.0 |
| 22.5 deg. | | | | | | | | | 0.0 |
| 45.0 deg. | | | | | | | | | 0.0 |
| 67.5 deg. | | | | | | | | | 0.0 |
| 90.0 deg. | | | | | | | | | 0.0 |
| 112.5 deg. | 8.3 | 4.2 | | | | | | | 12.5 |
| 135.0 deg. | 16.7 | 12.5 | | | | | | | 29.2 |
| 157.5 deg. | 8.3 | 16.7 | 8.3 | | 4.2 | | 4.2 | 16.7 | 58.3 |
| 180.0 deg. | | | | | | | | | 0.0 |
| 202.5 deg. | | | | | | | | | 0.0 |
| 225.0 deg. | | | | | | | | | 0.0 |
| 247.5 deg. | | | | | | | | | 0.0 |
| 270.0 deg. | | | | | | | | | 0.0 |
| 292.5 deg. | | | | | | | | | 0.0 |
| 315.0 deg. | | | | | | | | | 0.0 |
| 337.5 deg. | | | | | | | | | 0.0 |
| | 33.3 | 33.3 | 8.3 | 0.0 | 4.2 | 0.0 | 4.2 | 16.7 | 100.0 |

0 ug/m3 (0.0%) INVALID READINGS 0 DATA CAPTURE 100.00%

NUMBER OF POSSIBLE READINGS 24 VALID READINGS 24

1 Site

| Date | Time | Station | Wind Speed | Hourly STP | Hourly LTP | Main | Aux | Status | Error Cause |
|----------|-------------|---------|------------|------------|------------|------|-------|--------|-------------|
| 6/5/2012 | 1:00:05 AM | 032 | 23.6 | 43.3 | 36.7 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 2:00:05 AM | 032 | 17.9 | 20.2 | 17.2 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 3:00:05 AM | 032 | 19.1 | 18.4 | 15.7 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 4:00:05 AM | 032 | 17.2 | 22.0 | 18.9 | 3.00 | 13.65 | 0 | |
| 6/5/2012 | 5:00:05 AM | 032 | 22.2 | 59.5 | 50.7 | 2.99 | 13.65 | 0 | |
| 6/5/2012 | 6:00:05 AM | 032 | 24.6 | 210.4 | 178.2 | 3.00 | 13.65 | 0 | |
| 6/5/2012 | 7:00:05 AM | 032 | 22.9 | 96.6 | 81.7 | 3.00 | 13.65 | 0 | |
| 6/5/2012 | 8:00:05 AM | 032 | 25.3 | 142.7 | 119.6 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 9:00:05 AM | 032 | 32.2 | 1015.4 | 846.8 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 10:00:05 AM | 032 | 32.9 | 754.8 | 623.3 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 11:00:05 AM | 032 | 33.6 | 763.5 | 626.8 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 12:00:05 PM | 032 | 34.9 | 886.2 | 724.0 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 1:00:05 PM | 032 | 34.1 | 509.4 | 416.5 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 2:00:05 PM | 032 | 31.9 | 354.3 | 287.2 | 3.00 | 13.65 | 0 | |
| 6/5/2012 | 3:00:05 PM | 032 | 28.0 | 133.0 | 108.2 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 4:00:05 PM | 032 | 30.7 | 204.9 | 167.7 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 5:00:05 PM | 032 | 30.7 | 146.6 | 120.1 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 6:00:05 PM | 032 | 29.4 | 95.8 | 78.5 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 7:00:05 PM | 032 | 29.2 | 98.8 | 81.8 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 8:00:05 PM | 032 | 34.8 | 105.8 | 89.0 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 9:00:05 PM | 032 | 22.8 | 76.2 | 66.0 | 3.00 | 13.66 | 0 | |
| 6/5/2012 | 10:00:05 PM | 032 | 26.2 | 19.0 | 16.2 | 3.00 | 13.65 | 0 | |
| 6/5/2012 | 11:00:05 PM | 032 | 24.8 | 20.9 | 17.7 | 3.00 | 13.66 | 0 | |
| 6/6/2012 | 12:00:05 AM | 032 | 29.5 | 36.9 | 31.3 | 3.00 | 13.65 | 0 | |



Coal Tracking Application Status Report



COAL PRODUCTION-06/05/2012

Coal Production

Date: 06/05/2012

By: Craig Weber

Summary:

Safety

By: Weber

We had a May Day @ 2:00 for a fire on top of 245 water trucks engine we were able to get it out right away with fire extinguishers & 284 W.T. It was a very good catch on Kim Cooks part as Marvin was going by she notice something not right & had him stop to look at it, that may have save that operator & truck as the fire was on the off side when she seen it. We were running 3 water trucks because of the high winds.

Blast

By: Weber

None

OVB

By: Weber

205 is finishing up the bench 2 cut as I'm typing this. We ran 5 trucks to D1 & D2. One scraper hauling parting.

Coal

By: Weber

Filled all four silos.

Misc

By: Weber

Clint & Jay worked at Clovis picking up things & cleaning where they could.

09/12/12



Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matt Mead, Governor

John Corra, Director

September 12, 2012

Stevan Mueller, Air Quality Contact
Wyodak Resources Development Corp.
3338 Garner Lake Rd.
Gillette, WY 82716

**RE: Wyodak Resources Development Corporation Wyodak Mine
Request to flag data as due to Exceptional Event under CFR 50.14**

Mr. Mueller:

This is to confirm the receipt of your Exceptional Event Flag Request for the June 5, 2012 PM10 monitored exceedance at the Wyodak Mine located in Campbell County, Wyoming. The request to flag data was received on September 12, 2012.

The request will be reviewed by an Air Quality Division (AQD) team, and you will be notified as to whether or not the request fulfills all necessary requirements in accordance with the 40 CFR Part 50.14 and the Powder River Basin Natural Events Action Plan (PRB NEAP). The AQD offers a maximum of two (2) opportunities for additional information submittal by the company and AQD team review, at the discretion of the team. After a final submittal, a team decision will be made to either approve or disapprove your request to flag data. After the review process, if the decision to approve your request is made, a thirty (30) day public comment period is required. The Exceptional Event Flag Request will be submitted, by the AQD, to EPA Region 8 for concurrence. If the decision is made to disapprove your requests, you will be so notified and provided with the reason(s) for denial.

Please contact me at kirk.billings@wyo.gov or 307-335-6963 if you have questions concerning this matter.

Sincerely,

Kirk Billings

Air Quality Analyst

Air Quality Division

cc: Cara Keslar, Monitoring Section Supervisor,
Tanner Shatto, District Engineer



11/15/12



Department of Environmental Quality

*To protect, conserve and enhance the quality of Wyoming's
environment for the benefit of current and future generations.*



Matthew H. Mead, Governor

Todd Parfitt, Director

November 15, 2012

Certified Mail Receipt Number: 7011 1570 0003 4871 6683

Mr. Stevan Mueller
Air Quality Contact
Wyodak Resources Development Corp.
3338 Garner Lake Road
Gillette, WY 82716

Re: Request for Flag under the Exceptional Event Rule for PM₁₀ June 5, 2012 Exceedance

Dear Mr. Mueller,

The Air Quality Division (AQD) has reviewed the request to flag the June 5, 2012 PM₁₀ ambient monitored data as an Exceptional Event in accordance with the 40 CFR Part 50.14 at the Wyodak Coal Mine (Wyodak). Although the AQD has placed a temporary "High Wind" flag in AQS on the June 5, 2012 PM₁₀ data, with the description "Possible Exceptional Event – under evaluation by AQD", the team of AQD staff found significant deficiencies in the "weight of evidence" approach presented in the September 7, 2012 submittal. Supplemental information is needed before AQD can determine if all elements were addressed to exclude event-related concentrations from regulatory determinations.

The review team requests the following information/ answers to the following questions to clarify the packet:

- In light of the fact that the Exceptional Event packet has the potential to be submitted to public comment and may be reviewed by the Environmental Protection Agency (EPA), please provide a facility map including:
 - Monitor locations
 - Wind direction during exceedance
 - Mining activities
 - List of equipment operating in the area
 - Haul roads
 - Crushing and/or screening operations
 - Any other sources of fugitive emissions in the area
- Please provide a detailed (including times for each action and reaction) narrative of the facility's actions and reactions to the excessive dust during the day.
- Does Wyodak currently have a system in place to notify them in real time of high or above average readings at their PM-10 monitors?
- Please address part D of the Exceptional Event rule (40 CFR 50.14).
- The graph submitted as part of the facility's Exceptional Event packet showed winds above 20 mph for most of the day, though high PM₁₀ readings started to drop off after 3 pm. What actions, if any, were taken by the facility to cause this? Were there any other factors besides facility actions that might have caused this drop off?

Herschler Building · 122 West 25th Street · Cheyenne, WY 82002 · <http://deq.state.wy.us>

| | | | | | | |
|--|---|---|---|--|--|---|
| ADMIN/OUTREACH (307) 777-7758 FAX 777-7682 | ABANDONED MINES (307) 777-8145 FAX 777-6462 | AIR QUALITY (307) 777-7391 FAX 777-5616 | INDUSTRIAL SITING (307) 777-7369 FAX 777-5973 | LAND QUALITY (307) 777-7756 FAX 777-5864 | SOLID & HAZ. WASTE (307) 777-7752 FAX 777-5973 | WATER QUALITY (307) 777-7781 FAX 777-5973 |
|--|---|---|---|--|--|---|



- Please update the included table of data to include hourly wind direction data.
- Mention of water truck activity is included in the packet, but no detail is given. Please provide a detailed narrative of the time and place of operation of the water truck(s).

The AQD level of review for Exceptional Event packages is greatly dependent on the level of detail and information provided by the facility in the request to flag exceedances. EPA has also provided examples of exceptional events demonstrations that meet the requirements of the draft high wind guidance. The following link <http://www.epa.gov/ttn/analysis/exeevents.htm> is the best place to find examples of information that are needed to have EPA concur with an exceptional event demonstration.

Please keep in mind that while AQD had an extensive staff of monitoring, compliance and permitting personnel available to evaluate the documentation packet, this packet will also be reviewed by the public and EPA.

Please submit the requested supplemental information to Cara Keslar, Monitoring Section Supervisor no later than two (2) weeks from receipt of this letter. The AQD evaluation team will reconvene to determine if all requirements were met under the Exceptional Event Rule. If all requirements of the rule were met, AQD will keep the flags in the AQS database and the documentation package will be made available for public review and submitted to EPA Region 8 for concurrence. If you have questions please contact me at (307) 335-6963 or kirk.billings@wyo.gov.

Sincerely,



Kirk Billings
Air Quality Analyst, Monitoring Section

Cc: Wyodak Monitoring File

11/21/12

Mueller, Stevan

From: Mueller, Stevan
Sent: Wednesday, November 21, 2012 10:20 AM
To: 'Cara Keslar'
Subject: RE: Wyofak Mine Exceedance

Thank you Cara.

From: Cara Keslar [<mailto:cara.keslar@wyo.gov>]
Sent: Wednesday, November 21, 2012 8:31 AM
To: Kirk Billings
Cc: Mueller, Stevan; Tanner Shatto (tanner.shatto@wyo.gov); Darla Potter; nancy vehr; Steve Dietrich
Subject: Re: Wyofak Mine Exceedance

Stevan,

In speaking with Management, we have decided to grant your request for additional time until close of business on December 7 to submit the requested information. This decision is based on facility and staff time off for the Thanksgiving holiday and extenuating circumstances the following week. Please understand that in the future a two week turnaround time is expected when you receive an additional information request.

Thanks,
Cara

Cara Keslar
Monitoring Section Supervisor
Wyoming DEQ - Air Quality Division
(307) 777-8684 (office)
(307) 286-2383 (cell)
cara.keslar@wyo.gov

On Wed, Nov 21, 2012 at 7:42 AM, Kirk Billings <kirk.billings@wyo.gov> wrote:
Stevan,

As this is not my policy, but an Air Quality Division policy, I cannot approve your request for an additional week. I do think that the intent of the policy was to grant a facility ten business days to submit supplemental information for their exceptional event packet, so it would make sense to add the day lost due to Thanksgiving back onto the due date. Since the letter was received November 16th, instead of November 30th, December 3rd would be the logical due date.

--
Kirk Billings
Wyoming Department of Environmental Quality
Air Quality Division, Monitoring Group
(307) 335-6963 (desk)
(307) 438-2470 (cell)
kirk.billings@wyo.gov

On Wed, Nov 21, 2012 at 6:46 AM, Mueller, Stevan <Stevan.Mueller@blackhillscorp.com> wrote:

Kirk,

We received your request for additional information late Friday. The letter indicated that we must provide the information within 2 weeks or by November 30th. The additional information will take a considerable amount of time to package and I am requesting an additional week, or until December 7th. As you know, this will be a short week because of the Thanksgiving Holiday and next week I will be out of town Wednesday through Friday. Thank you.

Steve

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12/05/12



Wyodak Resources Development Corp.

3338 GARNER LAKE ROAD
GILLETTE, WYOMING 82716

PHONE (307) 682-3410
FAX (307) 682-0208

December 5, 2012

Ms. Cara Keslar
Department of Environmental Quality
Air Quality Division
122 West 25th Street
Cheyenne, Wyoming
82002

Re: 06/05/2012 24-Hour PM₁₀ Exceedance, Wyodak Mine

Dear Ms. Keslar:

On June 5, 2012 the Wyodak Mine recorded an average 24-hour PM₁₀ concentration of 237 ug/m³ at Air Quality Monitoring Site 1. This exceeds the 24-hour PM₁₀ National Ambient Air Quality Standard of 150 ug/m³. Wyodak submitted a request to the WDEQ/AQD on September 7th to flag the exceedance as an Exceptional Event in accordance with 40 CFR Part 50.14. The WDEQ/AQD responded on November 15th with a request for additional information. The original submittal has been reformatted to incorporate the WDEQ/AQD comments and responses below. In addition, the following information provided on September 7th has been reformatted and is resubmitted under this cover letter:

- Exhibit A 06/05/12 Meteorological Data Summary
- Exhibit B 06/05/12 Wind Rose
- Exhibit C 06/05/12 Comparison of Average Wind Speed & PM₁₀ Concentrations
- Exhibit D 06/05/12 Relative Frequency Table
- Exhibit E TEOM PM₁₀ Pollution Rose
- Exhibit F 06/05/12 Relative Frequency Table
- Exhibit G 06/05/12 PM₁₀ Hourly Averages
- Exhibit H 06/05/12 Production Foreman's Log

The following have also been added:

- Exhibit I 05/16/11 Incident Report
- Exhibit J Follow Up Production Foreman's Comments
- Exhibit K Revised Incident Report Template
- Plate 1 06/05/12 Mining Activities

- **WDEQ/AOD Comment:** In light of the fact that the Exceptional Event packet has the potential to be submitted to public comment and may be reviewed by the Environmental Protection Agency (EPA), please provide a facility map including:
 - Monitoring locations
 - Wind direction during exceedance
 - Mining activities
 - List of equipment operating in the area
 - Haul road
 - Crushing and/or screening operations
 - Any other sources of fugitive emissions in the area

Wyodak Response: See Plate 1, “06/05/2012 Mining Activities.

- **WDEQ/AOD Comment:** Please provide a detailed (including times for each action and reaction) narrative of the facility’s actions and reactions to the excessive dust during the day.

Wyodak Reponse:

- **Contractor Activities:** On June 5th Altfilisch Mining Services, Inc. (AMS) stripped/stockpiled 5,376 cy of topsoil and moved 1,000 cy of material during construction of a future haul road. The location of their activities is shown on Plate 1. They operated 5 – 657 scrapers and 3 - 651 scrapers from 7:00 am until 11:00 am. Light pickup traffic continued to operate until approximately 11:30 am. Support equipment included 1-D6 dozer, 1-D9 dozer and 1-16H blade. Their normal shift was 7:00 am until 5:30 pm, but on this day they shut down early when it became apparent they could not effectively control the fugitive emissions because of high winds. AMS was contractually responsible for dust control and placed 32,000 gallons of water on the active stripping and stockpiling areas prior to suspending operations. The drop in PM₁₀ concentrations recorded at Site 1 shows a correlation with the AMS early shutdown (see Exhibit C).

No other contractor activities were conducted on that date that would have contributed to the elevated emissions.

- **Wyodak Mine Activities:**
Overburden Removal
 Approximately 25,960 cy of overburden were stripped on June 5th. This material was removed with a P&H electric shovel and hauled with 5-240 T end-dump trucks during the normal 6:30 am to 5:00 pm shift. Actual activities started at approximately 7:00 am. Support equipment included 1-rubber tire dozer and 1-16M blade. All overburden removal activities were confined to Overburden Bench 2 on that day. The active stripping area included 4 overburden benches with a maximum bench height of 45 feet each.

Overburden Bench 2 is the second bench above coal. All overburden removed during the shift was hauled to Dumps 1 and 2. These were the lowest backfill placement areas available on that date. The overburden stripping area, backfill areas and haul route are shown on Plate 1.

Interburden Removal

Approximately 3,198 cy of interburden separating the top and bottom coal seams were removed with 1-637 scraper and temporarily placed on Overburden Bench 1 for later removal by truck/shovel when overburden stripping activities relocated to this area. The distance to Bench 1 was significantly shorter than hauling the material to Dumps 1 and 2. The interburden location, Overburden Bench 1 and the haul route are shown on Plate 1.

Coal Removal

Approximately 10,920 tons of coal were mined during the day with front end loaders and placed in the portable stamler where the coal undergoes primary crushing to 8" minus. The coal was then conveyed through a series of cascading portable conveyors to the overland conveyor and to the power plant complex south of Interstate 90. Coal removal occurred between 7:00 am and 1:15 pm when the storage silos filled. Coal removal activities during the day are shown on Plate 1.

Two water trucks were assigned at the start of the shift and were operating by 7:00 am. A third water truck was assigned and was operating by 10:30 am because of the continuation of high winds. Wyodak routinely operates two water truck and adds a third if the dust control is not adequate. The addition of a third water truck is indicative of the heightened concern on that date. Two of the water trucks operated continuously from 7:00 am until 4:30 pm. Water Truck #245 was shut down at 2:00 pm when a small fire was noted in the engine compartment. The water trucks covered all active stripping/mining areas, haul routes, the floor of the Clovis Pit and the truck loadout facilities in the Peerless Pit.

- **WDEQ/AOD Comment:** Does Wyodak currently have a system in place to notify them in real time data of high or above average readings at their PM-10 monitors?

Wyodak Response: The air quality/meteorology monitoring network consists of a weather station and two TEOM monitoring sites. All 3 sites are connected to the Corporate computer network and provide real time data. The data is routinely used to monitor and manage mining activities during high wind events. The location of each site on June 5th is shown on Plate 1. Air Quality Monitoring Sites 1 and 4 were relocated on August 23rd and renamed Sites 5 and 6. Site 1 was relocated at the request of the WDEQ/AOD because it was inside the LNCM boundary and did not monitor ambient air. The state and federal regulations

require an operator to monitor the impact of their mining operations outside this boundary, which was not the case with Site 1.

All production/ maintenance supervisors and management personnel were trained on June 5th to consider various reactionary controls under the Natural Events Action Plan when the following trigger points were met:

- Winds exceed 20 mph on an hourly average
- 1-hour PM₁₀ average exceeds 300 ug/m³
- 24-hour average exceeds 100 ug./m³

Supervisory and management personnel were also empowered to implement reactionary controls independent of the PM₁₀ levels if there was a safety concern. In nearly every case to date safety considerations have driven the reactionary controls. Incident Forms are available in the production office and include a checklist of reactionary control measures to consider. A copy of the Incident Report for May 16, 2011 is attached as an example (see Exhibit I). An Incident Form was not completed on June 5th although reactionary controls were implemented.

The guards at the mine entrance had access to the monitoring data on June 5th and the policy in effect at the time was to have them declare a High Wind Alert and notify the production foreman on duty when all 3 of the above trigger points were met. Unfortunately, the computer link to the monitoring data was down that day and a High Wind Alert was not declared. The Wyodak phone system had been recently replaced and the IP range changed in the process. The new IP range failed to keep the port active to the original IP range and the IT technician had not yet identified the problem. Although the production foreman was not advised of a High Wind Alert he recognized the safety concerns and reacted in accordance with the NEAP procedures even though an Incident Report was not completed. His shift notes are attached as Exhibit H and his follow up comments are attached as Exhibit J.

Wyodak was not aware of the exceedance until August 28th when the 2nd quarter report was reviewed prior to submitting it to the WDEQ/AQD. There was no indication from Inter-Mountain Labs of a problem when the data was retrieved or when the report was completed and submitted to Wyodak for review.

As a result of the June 5th exceedance, Wyodak has implemented several corrective measures to preclude a similar situation in the future:

- Icons have been installed on the computers of all production/ maintenance supervisors and management personnel to provide immediate access to the monitoring data. Although access has always been available, the path has been simplified.

- The computer software has been upgraded by Inter-Mountain Labs. Each parameter has been programmed to turn yellow when a specific trigger point is reached. The parameters turn red when all conditions are met. The use of guards to declare a High Wind Alert has been eliminated. Automatic emails are now sent to production/ maintenance supervisors, management personnel and IML to alert them when the 1-hour and 24-hour PM₁₀ concentrations reach the specified levels. Wind velocity has been removed as a trigger point for automatic emails. Regardless of the impact of high winds, Wyodak will consider reactionary measures when PM₁₀ concentrations reach the specified trigger points. The format for the Incident Report has been revised accordingly and is attached as Exhibit K. Automatic emails will also be sent to Wyodak personnel and IML when there is a reportable exceedance of the 24-hour PM₁₀ regulatory limit to ensure immediate notification to the WDEQ/AQD.
 - Inter-Mountain Labs has been granted access to the monitoring system through the corporate computer system. Past concerns over security have been addressed. IML can now identify problems and download the data remotely from their Sheridan office. A third series of automatic emails will be sent to Wyodak personnel and IML when the connection to the monitoring network is lost or the monitoring network itself quits functioning. Together with monthly site verifications and semiannual audits, these safeguards should preclude the problems that occurred on June 5th and reduce down time.
- **WDEQ/AQD Comment:** Please address part D of the Exceptional Event rule (40 CFR 50.14)

Wyodak Response: 40 CFR 50.14(c) (IV) (D) states: The demonstration to justify data exclusion shall provide evidence that there would have been no exceedance or violation but for the event.

A history of PM₁₀ concentrations at Air Monitoring Site 1 over the past 5 years is provided below:

| Quarter | High PM ₁₀ Concentration (ug/m ³ /date) | Wind Speed Hours Exceeding 20 MPH | 2 nd High PM ₁₀ Concentration (ug/m ³ /date) | Quarter Average PM ₁₀ Concentration (ug/m ³) |
|------------|---|-----------------------------------|---|---|
| 01-03/2008 | 21.0 01/19/2008 | | 19.0 01/31/2008 | 9.4 |
| 04-06/2008 | 35.0 05/21/2008 | 3 | 32.0 06/29/2008 | 13.4 |
| 07-09/2008 | 91.0 08/01/2008 | 2 | 64.0 09/27/2008 | 31.6 |
| 10-12/2008 | 83.0 10/03/2008 | 2 | 59.0 10/30/2008 | 15.3 |

| | | | | |
|------------|---------------------|----|--------------------|------|
| 01-03/2009 | 44.0 02/27/2009 | | 32.0 03/02/2009 | 11.5 |
| 04-06/2009 | 73.0 06/30/2009 | 1 | 50.0 05/19/2009 | 17.9 |
| 07-09/2009 | 101.0 09/19/2009 | | 91.0 09/28/2009 | 35.2 |
| 10-12/2009 | 95.8 12/28/2009 | 1 | 92.0 12/26/2009 | 19.2 |
| 01-03/2010 | 82.5 01/06/2010 | 16 | 45.6 01/08/2010 | 16.6 |
| 04-06/2010 | 115.1 06/29/2010 | 7 | 72.8 06/30/2010 | 20.7 |
| 07-09/2010 | 105.6 08/22/2010 | 7 | 79.1 07/02/2010 | 29.4 |
| 10-12/2010 | 129.0 10/02/2010 | 6 | 74.9 10/07/2010 | 23.0 |
| 01-03/2011 | 85.2 03/21/2011 | 10 | 74.2 03/24/2011 | 16.3 |
| 04-06/2011 | 133.7 05/16/2011 | 22 | 57.6 05/15/2011 | 16.5 |
| 07-09/2011 | 105.0 08/24/2011 | 2 | 99.6 07/26/2011 | 41.7 |
| 10-12/2011 | 74.4 10/01/2011 | | 67.9 10/04/2011 | 22.1 |
| 01-03/2012 | 100.3 03/26/2012 | 7 | 68.7 03/13/2012 | 19.2 |
| 04-06/2012 | 237.0 06/05/12 | 21 | 114.5 04/11/12 | 32.3 |
| 07-09/2012 | 118.3 07/01/2012 | 7 | 84.1 07/03/2012 | 36.4 |

With the exception of the June 5th event, there have been no reportable exceedances at Site 1 since Wyodak purchased the Clovis Point and East Gillette Mines from the Kerr-McGee Coal Corporation in 1997 and consolidated these properties under one air quality permit on January 12, 2001. There have been no changes in mining methods over the past 5 years that would result in changes to the PM₁₀ concentrations. In fact, overburden and coal volumes have declined in 2012 compared to recent years because of the cancellation of the Dave Johnston Power Plant contract and the drop in electrical generation at the adjacent power plants because of increased wind generation in southern Wyoming. The increase in PM₁₀ concentrations over time are the result of the northern advance of the active pit and a reduction in distance between mining activities and the air quality monitor.

Comparing the past 5 years of data, the PM₁₀ concentration recorded on June 5th was clearly an exceptional event. The only comparable event occurred on May 16,

2011 and a copy of the Incident Report is attached as Exhibit I. In this case the 24-hour PM₁₀ concentration was 133.7 ug/m³ at a time when Wyodak operated two 12-hour shifts with higher overburden and coal volumes. As discussed earlier, the exceedance appears to be related to contractor activities and there was a corresponding decrease in fugitive emissions once AMS shut down. The contractor operated on the mine site from April 23rd to June 22nd at higher production levels and under more favorable conditions than June 5th with no impact on the 24-hour PM₁₀ regulatory limit.

- **WDEQ/AOD Comment:** The graph submitted as part of the facility's Exceptional Event packet showed winds above 20 mph for most of the day, though high PM₁₀ readings started to drop off after 3 pm. What actions, if any, were taken by the facility to cause this? Were there any other factors besides facility actions that might have caused this drop?

Wyodak Response: The PM₁₀ concentrations steadily declined after 12:00 pm as a result of AMS shutting down. Other contributing sources included:

- The active overburden stripping/placement areas and haul road corridors.
- The floor of the pit corridor along the in-pit conveyor system where coal fines accumulate.
- The exposed areas following topsoil removal
- The transfer points associated with the in-pit coal system
- The ash disposal area in the Peerless Pit.

Wyodak concentrated its control efforts during the day on the active overburden stripping area and short-term/long-term haul roads to maximize the effectiveness of the water trucks. These efforts would have likely been sufficient to meet the regulatory limits without the contractor contributions.

- **WDEQ/AOD Comment:** Please update the included table of data to include hourly wind direction data.

Wyodak Response:
See revised Exhibit G.

- **WDEQ/AOD Comment:** Mention of water truck activity is included in the packet, but no detail is given. Please provide a detailed narrative of the time and place of operations of the water truck(s).

Wyodak Response: The production foreman on duty June 5th has reviewed his notes and time tickets. Water Truck # 220 (20,000 gallon capacity) and Water Truck # 221 (21,000 gallon capacity) were assigned at the start of the shift and were operating by 7:00 am. Water Truck #245 (15,000 gallon capacity) was assigned and in operation by 10:30 am when it was apparent that additional control was needed. Water Truck #245 caught fire at approximately 2:00 pm and

remained shut down the remainder of the shift, which ended at 5:00. Assuming a normal 45 minute cycle time, which includes loading, approximately 550,000 gallons were applied to the active overburden/interburden stripping and placement areas, haul road corridors, the floor of the active mining area and corridor along the in-pit conveyor system, and the area of the truck loadout in the Peerless Pit. These areas are shown on Plate 1.

Conclusion:

- The average wind speed on June 5th was 27.4 mph with gusts ranging from 17.2 to 34.9 mph. There were 21 hours of sustained winds over 20 mph. The 24-hour PM₁₀ concentration of 237 ug/m³ at Site 1 was a direct result of the high winds, which overwhelmed the permitted and reactionary control measures in place under NEAP, which Wyodak participates in and helped develop along with the other mines in the Powder River Basin.
- The primary source of the elevated PM₁₀ concentrations on June 5th was AMS, a contractor on the mine site who was stripping topsoil and constructing a future haul road. There was a significant increase in PM₁₀ levels that corresponded with the start of both the Wyodak and AMS operations. These concentrations declined after AMS shut down early because of high winds and inability to effectively control the emissions. Although other sources likely contributed to the exceedance, past history suggests that the levels would have remained under the compliance threshold without the contractor contributions early in the day. In addition to the AMS shutdown, Wyodak also implemented a variety of reactionary control measures to maximize control and minimize the fugitive emissions. These included the use of all 3 water trucks, concentrating them in areas where the maximum benefit would be realized, and removing overburden from a lower bench and placing it on the lowest dump with the shortest haul distance.
- Wyodak operates 2 air quality monitors (TEOMs) and a meteorological station that are connected to the Corporate computer system. The network provides real time data that is used for compliance monitoring and related management decisions. On this particular day the system was not working and a High Wind Alert was not declared. However, the steps taken by the production foreman for safety reasons were the same reactionary control measures that would have been expected under NEAP.
- Wyodak was unaware of the exceedance until August 28th when the report was reviewed prior to submitting it to the WDEQ/AQD. There was no prior notification from Inter-Mountain Labs. Consequently, the exceedance was not reported within 30 days. To avoid a future occurrence, IML has been granted direct access to the monitoring network through the corporate computer network and can now identify problems and download the data remotely from their Sheridan office. The program has also been revised to send automatic emails to Wyodak personnel and IML under the following conditions:

- 1-hour PM_{10} concentration exceeds $300\mu\text{g}/\text{m}^3$ & the 24-hour PM_{10} concentration exceeds $100\mu\text{g}/\text{m}^3$. Once both conditions are met Wyodak will evaluate reactionary control measures.
- A reportable exceedance of the 24-hour PM_{10} $\mu\text{g}/\text{m}^3$ regulatory limit has been recorded. This will ensure immediate notification to the WDEQ/AQD.
- The connection to the monitoring network has been lost or the monitoring network itself quits functioning.

The above safeguards should preclude the problems that occurred on June 5th.

Regulatory Compliance

Air Monitoring Site 1 was relocated outside of the LNCM boundary and renamed Site 5 in August 2012. The WDEQ/AQD was unwilling to accept the original location since it did not monitor ambient air quality or offsite impacts from mining. Wyodak agreed to cooperate with the WDEQ/AQD and was in the process of relocating the site when the exceedance occurred.

Site 1 was located approximately 2,000 feet inside the LNCM boundary and the 24-hour PM_{10} regulatory limit of $150\mu\text{g}/\text{m}^3$ does not apply in this case. It seems logical that any data collected prior to the relocation would not be a true measure of compliance and furthermore the June 5th exceedance would not qualify as an infraction against the NAAQS regulations.

Please call me if you have any questions or need additional information.

Sincerely,



Stevan H. Mueller

EXHIBIT A

Wyodak Mine

Meteorological Data Summary

6/5/2012 - 6/5/2012

Hourly Data

| | Average/Total | Max | Min |
|-----------------------|----------------------|------------|------------|
| Wind Speed (mph) | 27.4 | 34.9 | 17.2 |
| Sigma-Theta (°) | 7.7 | 22.0 | 5.1 |
| Temperature (F) | 76.6 | 87.5 | 65.0 |
| Relative Humidity (%) | 33.1 | 50.6 | 18.9 |
| Precipitation (in) | 0.08 | 0.08 | |

Predominant wind direction was from the SSE sector,
accounting for 58.3% of the possible winds

Data Recovery

| Parameter | Possible (hours) | Reported (hours) | Recovery |
|-------------------|-----------------------------|-----------------------------|-----------------|
| Wind Speed | 24 | 24 | 100.00% |
| Wind Direction | 24 | 24 | 100.00% |
| Sigma-Theta | 24 | 24 | 100.00% |
| Temperature | 24 | 24 | 100.00% |
| Relative Humidity | 24 | 24 | 100.00% |
| Precipitation | 24 | 24 | 100.00% |

EXHIBIT B

Wind Rose -- June 5, 2012

Wyodak Mine

Gillette, WY

6/5/2012 Hr. 1 to 6/5/2012 Hr. 24

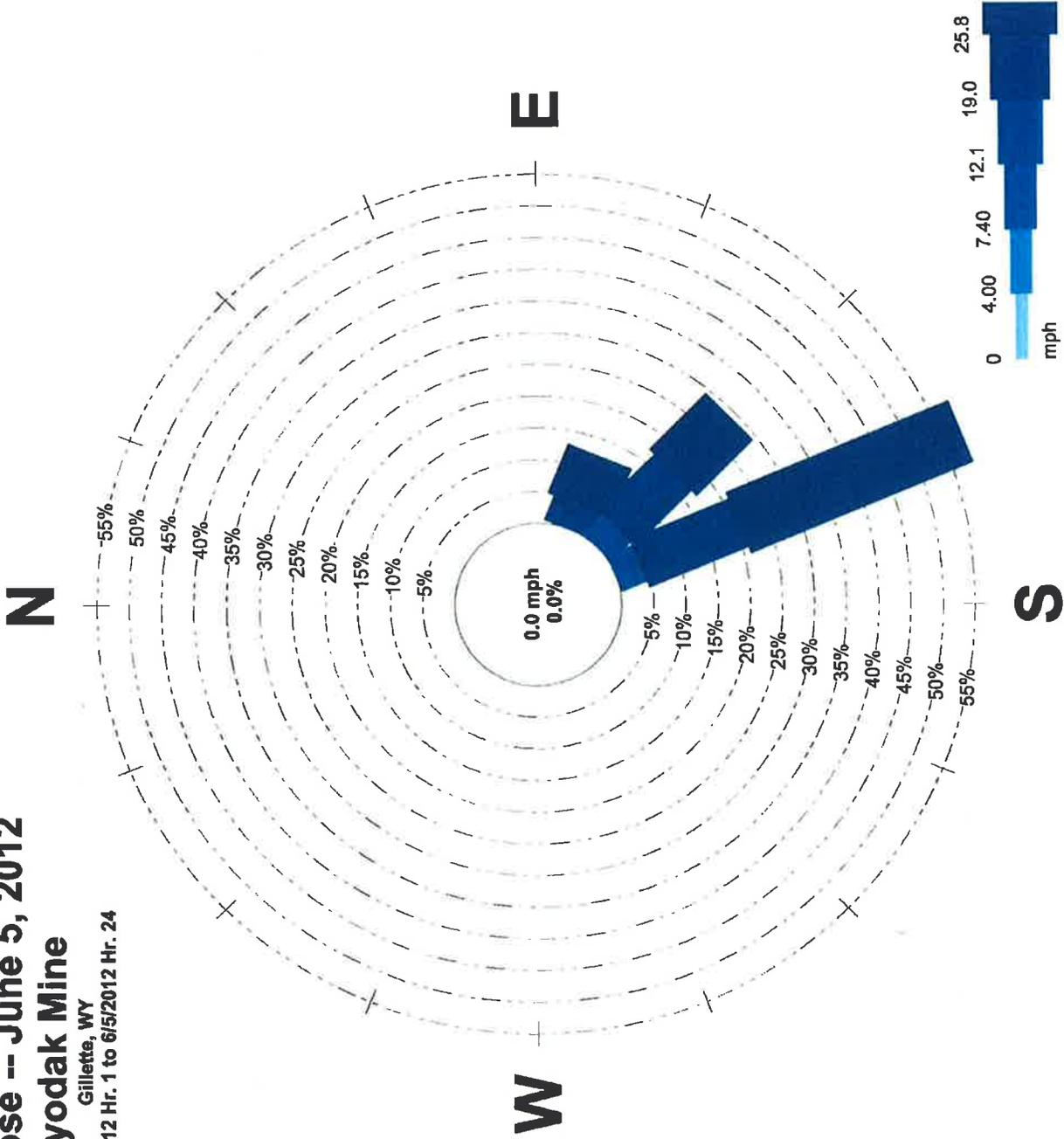


EXHIBIT C

Wind and Particulate
June 5th, 2012

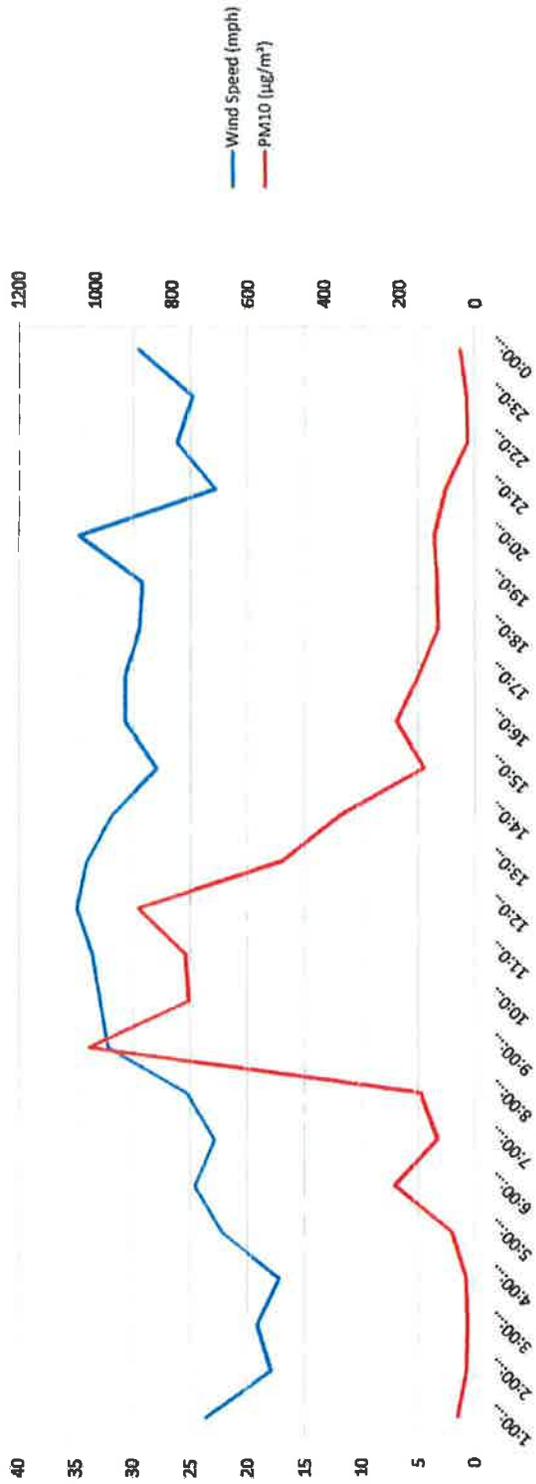


EXHIBIT D

Wind Rose -- June 5, 2012

Wyodak Mine

Gillette, WY

6/5/2012 Hr. 1 to 6/5/2012 Hr. 24

RELATIVE FREQUENCY (% of Recorded Winds) TABLE

| Wind Direction | 0.0- 4.0 | 4.0- 7.4 | 7.4-12.1 | 12.1-19.0 | 19.0-25.8 | 25.8-100.0 | Row Total |
|-----------------|----------|----------|----------|-----------|-----------|------------|-----------|
| 0.0 deg.(North) | | | | | | | 0.0 |
| 22.5 deg. | | | | | | | 0.0 |
| 45.0 deg. | | | | | | | 0.0 |
| 67.5 deg. | | | | | | | 0.0 |
| 90.0 deg. | | | | | | | 0.0 |
| 112.5 deg. | | | | 4.2 | 4.2 | 8.3 | 12.5 |
| 135.0 deg. | | | | 4.2 | 12.5 | 12.5 | 29.2 |
| 157.5 deg. | | | | 4.2 | 16.7 | 37.5 | 58.3 |
| 180.0 deg. | | | | | | | 0.0 |
| 202.5 deg. | | | | | | | 0.0 |
| 225.0 deg. | | | | | | | 0.0 |
| 247.5 deg. | | | | | | | 0.0 |
| 270.0 deg. | | | | | | | 0.0 |
| 292.5 deg. | | | | | | | 0.0 |
| 315.0 deg. | | | | | | | 0.0 |
| 337.5 deg. | | | | | | | 0.0 |
| | 0.0 | 0.0 | 0.0 | 8.3 | 33.3 | 58.3 | 100.0 |

0 mph (0.0%)

INVALID READINGS 0

NUMBER OF POSSIBLE READINGS 24

VALID READINGS 24

DATA CAPTURE 100.00%

EXHIBIT E

TEOM PM-10 Pollution Rose Wydak Mine - 1 Site TEOM

6/5/2012 Hr. 1 to 6/5/2012 Hr. 24

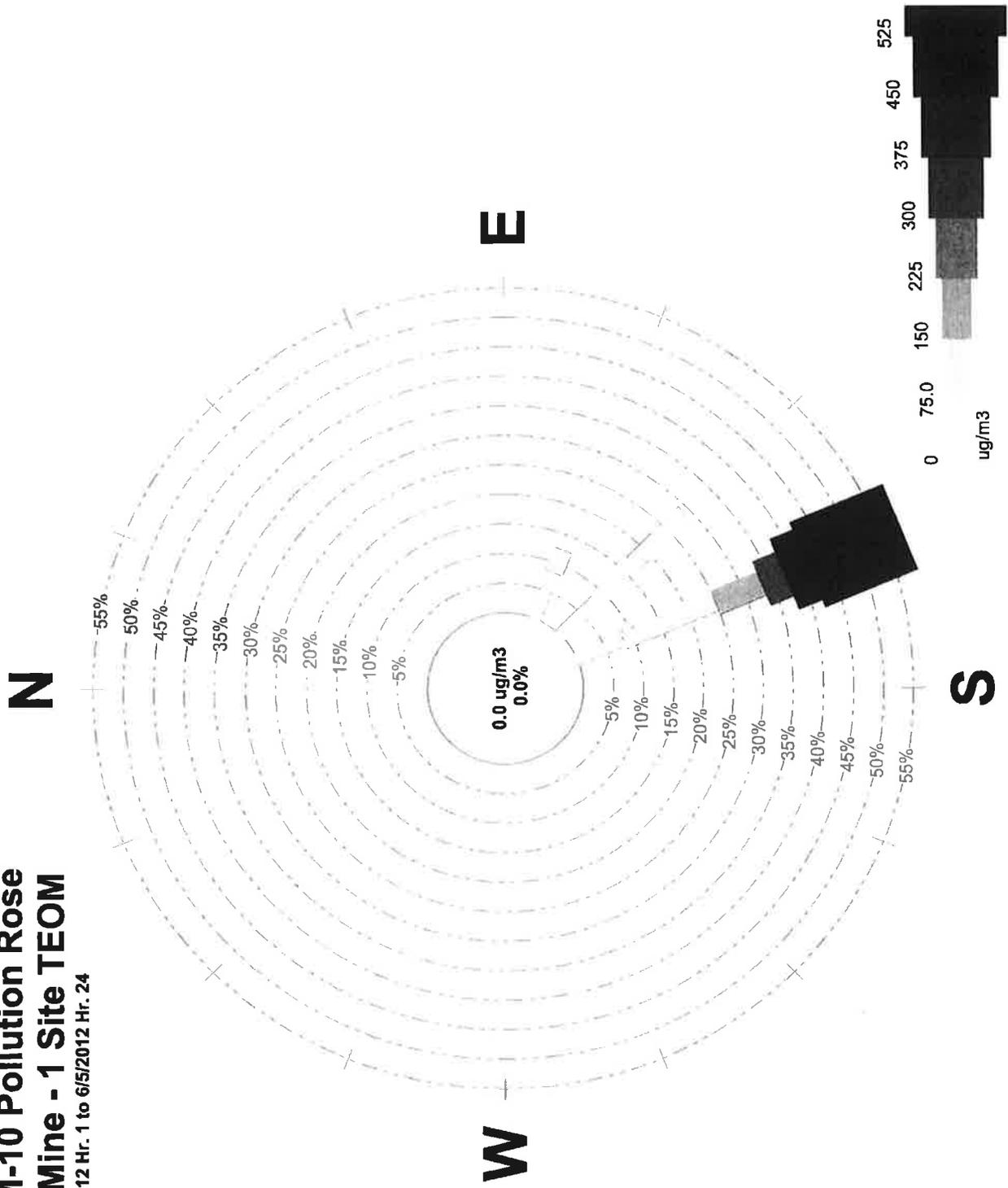


EXHIBIT F

**TEOM PM-10 Pollution Rose
Wyodak Mine - 1 Site TEOM
6/5/2012 Hr. 1 to 6/5/2012 Hr. 24**

RELATIVE FREQUENCY (% of Recorded Winds) TABLE

| Wind Direction | 0.0-75.0 | 75.0- 150 | 150- 225 | 225- 300 | 300- 375 | 375- 450 | 450- 525 | 525-above | Row Total |
|-----------------|----------|-----------|----------|----------|----------|----------|----------|-----------|-----------|
| 0.0 deg.(North) | | | | | | | | | 0.0 |
| 22.5 deg. | | | | | | | | | 0.0 |
| 45.0 deg. | | | | | | | | | 0.0 |
| 67.5 deg. | | | | | | | | | 0.0 |
| 90.0 deg. | | | | | | | | | 0.0 |
| 112.5 deg. | 8.3 | 4.2 | | | | | | | 12.5 |
| 135.0 deg. | 16.7 | 12.5 | | | | | | | 29.2 |
| 157.5 deg. | 8.3 | 16.7 | 8.3 | | 4.2 | | 4.2 | 16.7 | 58.3 |
| 180.0 deg. | | | | | | | | | 0.0 |
| 202.5 deg. | | | | | | | | | 0.0 |
| 225.0 deg. | | | | | | | | | 0.0 |
| 247.5 deg. | | | | | | | | | 0.0 |
| 270.0 deg. | | | | | | | | | 0.0 |
| 292.5 deg. | | | | | | | | | 0.0 |
| 315.0 deg. | | | | | | | | | 0.0 |
| 337.5 deg. | | | | | | | | | 0.0 |
| | 33.3 | 33.3 | 8.3 | 0.0 | 4.2 | 0.0 | 4.2 | 16.7 | 100.0 |

0 ug/m3 (0.0%) INVALID READINGS 0 VALID READINGS 24 DATA CAPTURE 100.00%

NUMBER OF POSSIBLE READINGS 24

EXHIBIT G

SITE 1 PM10 HOURLY CONCENTRATIONS

| Date | Time | Station | Wind Speed | Wind Direction | Hourly STP | Hourly LTP | Main | Aux | Status |
|----------|-------------|---------|------------|----------------|------------|------------|------|-------|--------|
| 6/5/2012 | 1:00:05 AM | 032 | 23.6 | 138.1 | 43.3 | 36.7 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 2:00:05 AM | 032 | 17.9 | 133.0 | 20.2 | 17.2 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 3:00:05 AM | 032 | 19.1 | 143.7 | 18.4 | 15.7 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 4:00:05 AM | 032 | 17.2 | 150.5 | 22.0 | 18.9 | 3.00 | 13.65 | 0 |
| 6/5/2012 | 5:00:05 AM | 032 | 22.2 | 157.4 | 59.5 | 50.7 | 2.99 | 13.65 | 0 |
| 6/5/2012 | 6:00:05 AM | 032 | 24.6 | 155.9 | 210.4 | 178.2 | 3.00 | 13.65 | 0 |
| 6/5/2012 | 7:00:05 AM | 032 | 22.9 | 153.0 | 96.6 | 81.7 | 3.00 | 13.65 | 0 |
| 6/5/2012 | 8:00:05 AM | 032 | 25.3 | 153.2 | 142.7 | 119.6 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 9:00:05 AM | 032 | 32.2 | 159.6 | 1015.4 | 846.8 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 10:00:05 AM | 032 | 32.9 | 163.2 | 754.8 | 623.3 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 11:00:05 AM | 032 | 33.6 | 161.0 | 763.5 | 626.8 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 12:00:05 PM | 032 | 34.9 | 158.1 | 886.2 | 724.0 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 1:00:05 PM | 032 | 34.1 | 153.9 | 509.4 | 416.5 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 2:00:05 PM | 032 | 31.9 | 155.9 | 354.3 | 287.2 | 3.00 | 13.65 | 0 |
| 6/5/2012 | 3:00:05 PM | 032 | 28.0 | 160.7 | 133.0 | 108.2 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 4:00:05 PM | 032 | 30.7 | 146.6 | 204.9 | 167.7 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 5:00:05 PM | 032 | 30.7 | 140.0 | 146.6 | 120.1 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 6:00:05 PM | 032 | 29.4 | 137.6 | 95.8 | 78.5 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 7:00:05 PM | 032 | 29.2 | 147.4 | 98.8 | 81.8 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 8:00:05 PM | 032 | 34.8 | 121.0 | 105.8 | 89.0 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 9:00:05 PM | 032 | 22.8 | 130.4 | 76.2 | 66.0 | 3.00 | 13.66 | 0 |
| 6/5/2012 | 10:00:05 PM | 032 | 26.2 | 118.3 | 19.0 | 16.2 | 3.00 | 13.65 | 0 |
| 6/5/2012 | 11:00:05 PM | 032 | 24.8 | 121.0 | 20.9 | 17.7 | 3.00 | 13.66 | 0 |
| 6/6/2012 | 12:00:05 AM | 032 | 29.5 | 135.2 | 36.9 | 31.3 | 3.00 | 13.65 | 0 |



Coal Tracking Application Status Report



COAL PRODUCTION-06/05/2012

Coal Production

Date: 06/05/2012

By: Craig Weber

Summary:

Safety

By: Weber

We had a May Day @ 2:00 for a fire on top of 245 water trucks engine we were able to get it out right away with fire extinguishers & 284 W.T. It was a very good catch on Kim Cooks part as Marvin was going by she notice something not right & had him stop to look at it, that may have save that operator & truck as the fire was on the off side when she seen it. We were running 3 water trucks because of the high winds.

Blast

By: Weber

None

OVB

By: Weber

205 is finishing up the bench 2 cut as I'm typing this. We ran 5 trucks to D1 & D2. One scraper hauling parting.

Coal

By: Weber

Filled all four silos.

Misc

By: Weber

Clint & Jay worked at Clovis picking up things & cleaning where they could.

WYODAK MINE NATURAL EVENTS ACTION PLAN INCIDENT REPORT

| Category 3 - Reactionary control measures considered and/or implemented in response to a high wind event (winds exceeding 20 mph on an hourly average) and elevated PM ₁₀ concentrations. | Yes | No | N/A |
|--|--------|----|--------|
| Were wind conditions and PM ₁₀ concentrations monitored? | ✓ | | |
| Were the water trucks directed to areas generating the most visible dust? | ① ✓ | | |
| Were the haul trucks directed to the shortest route possible to maximize the efficiency of the haul? | ② ✓ | | ✓ |
| Were the haul trucks directed to the lowest dump area available to minimize fugitive dust emissions that escape the pit? | ③ ✓ | | |
| Were scoria crushing activities shut down? | | | ✓ |
| Were extraneous activities (i.e. rock hauling, topsoil stripping, etc...) shut down? | | | ④ ✓ |
| Did contractors apply water or shut down haulage? | | | ✓ |

Verified by: *Lon Olson*

Date: *5-16-2011*

- Notes:
- ① additional water truck added in addition to selectively directing water placement.
 - ② all overburden haul trucks were directed to the closest dump "shortest route."
 - ③ all trucks were directed to the lowest dump. Reduced number of trucks operating
 - ④ sufficient moisture in topsoil so stripping activities (2 scrapers) are not a problem

A high wind alert will be declared when winds exceed 20 MPH on an hourly average, the 1-hour PM₁₀ average exceeds 300 ug/m³, and the 24-hour PM₁₀ average exceeds 100 ug/m³. These levels are monitored at the guardshack and are based on data collected at the weather station east of the South Pit. The Guards will be responsible for notifying the production Foreman when all three criteria are met. At that time the Foreman will consider the Category 3 control measures listed on the "Natural Events Action Plan Incident Report" and will implement those measures that are applicable and will help mitigate the dust problem. The Foreman will also be responsible for documenting the steps taken on the "Natural Events Action Plan Incident Report".

Environmental Data Display

Home Met Station Site 4 TEOM Site 1 TEOM
 Current Historical Data

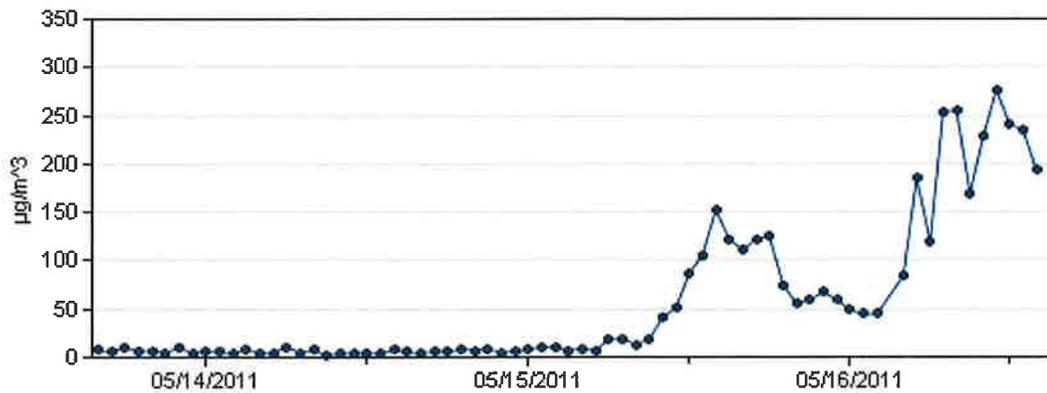
Summary

| | | | |
|---|--------------------------------|-----------|------|
| Calculated 24-hr Concentration (5/16/2011) | 179.0 $\mu\text{g}/\text{m}^3$ | 5/11/2011 | 6.4 |
| Last Hour Concentration (5/16/2011 2:00:05 PM) | 193.2 $\mu\text{g}/\text{m}^3$ | 5/12/2011 | 6.7 |
| Status | Good | 5/13/2011 | 8.0 |
| Filter Loading | 54 % | 5/14/2011 | 5.9 |
| | | 5/15/2011 | 57.6 |

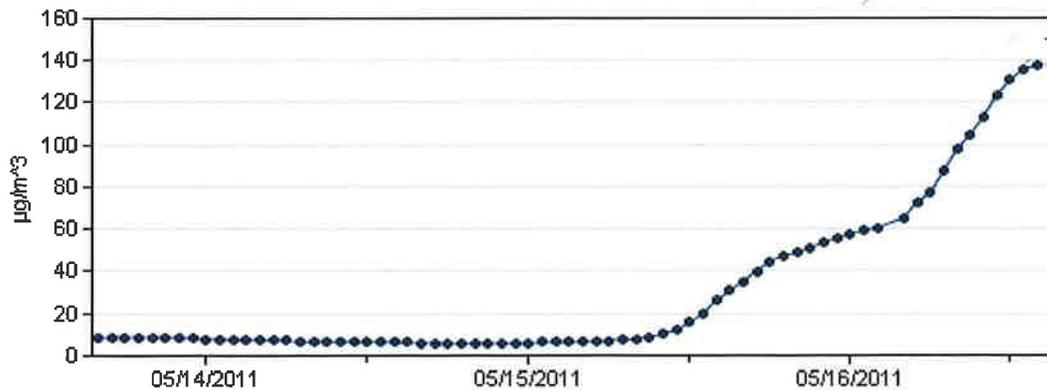
Alarm: Hourly PM Conc (STP) is >150.

Last 24 Hour Charts

Hourly Concentration



24-Hr Concentration



Copyright 2010 IML Air Science

Environmental Data Display

Home Met Station Site 4 TEOM Site 1 TEOM
 Current Conditions Monthly Data Historical Data Summary

[ChangeUnits](#)

Last Updated: 5/16/2011 7:13:00 AM

Temp: 44.6 °F
 Wind Speed: 27.6 mph
 Wind Dir: 142 °
 RH: 66.7 %
 Pressure: 25.23 inHg
 Rainfall since Midnight: 0.00 in

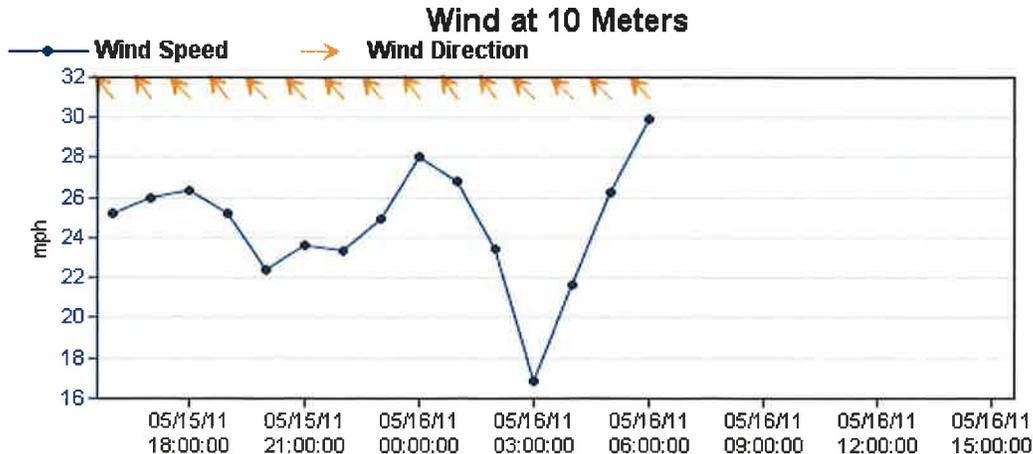


NEAP Reaction Conditions
 Last Updated: 5/16/2011 3:00:05 PM

| | | | | | |
|-----------------|------|---|---|--|--|
| Wind Speed: mph | 29.9 | Site 4 Hour Conc: 23.7 $\mu\text{g}/\text{m}^3$ | Site 4 24hr Conc: 12.6 $\mu\text{g}/\text{m}^3$ | Site 1 Hour Conc: 193.2 $\mu\text{g}/\text{m}^3$ | Site 1 24hr Conc: 179.0 $\mu\text{g}/\text{m}^3$ |
|-----------------|------|---|---|--|--|

Alarm: Wind Speed is >8.9408.
 Alarm: Hourly PM Conc (STP) is >150.
 *One or more values used in calculation met alarm criteria.

Last 24 Hour Charts



Mueller, Stevan

From: Weber, Craig
Sent: Wednesday, November 21, 2012 3:30 PM
To: Mueller, Stevan

Steve,

I went back through all the information I could find for June 5th and what I found was that I had assigned two water trucks to start the shift as the shift got going I seen 2 water trucks was going to keep up so I pulled operator Jay Crotty out of Clovis and had the 3rd and final water truck running by 10:30. That day we were loading off of the bench 2 which out of four benches it was pretty low in the pit and we mainly dumped on Dump 1 & Dump 2 which are our lowest dumps. We only ran 1 shovel & 5 trucks that day where we had normally been running 2 shovels & 7 trucks. We ran coal to the silos till 1:15 that day and then the system was shut down. We had all 3 water trucks till 2:00 then 245 had a fire on the engine and we lost that water truck.

Craig Weber

WRDC

E- craig.weber@blackhillscorp.com

W-307-687-8914

C-307-670-4977

**WYODAK MINE
NATURAL EVENTS ACTION PLAN
INCIDENT REPORT**

| Category 3 - Reactionary control measures considered and/or implemented in response to elevated PM₁₀ concentrations. | Yes | No | N/A |
|--|-----|----|-----|
| Were wind conditions and PM ₁₀ concentrations monitored? | | | |
| Were the water trucks directed to areas generating the most visible dust? | | | |
| Were the haul trucks directed to the shortest route possible to maximize the efficiency of the haul? | | | |
| Were the haul trucks directed to the lowest dump area available to minimize fugitive dust emissions that escape the pit? | | | |
| Were scoria crushing activities shut down? | | | |
| Were extraneous activities (i.e. rock hauling, topsoil stripping, etc...) shut down? | | | |
| Did contractors apply water or shut down haulage? | | | |

Verified by: _____

Date: _____

Notes:

An emissions alert will be declared when the 1-hour PM₁₀ average exceeds 300 ug/m³ and the 24-hour PM₁₀ average exceeds 100 ug/m³. Each parameter is programmed to turn yellow when it reaches this level. The parameters turn red when both conditions are met and automatic emails are sent to management personnel at the Wyodak Mine. At that time the acting supervisors will consider the Category 3 control measures listed on the "Natural Events Action Plan Incident Report" and will implement those measures that are applicable and will help mitigate the dust problem. The supervisors will also be responsible for documenting the steps taken on the "Natural Events Action Plan Incident Report". The alert is independent of wind velocities.

01/30/13

Mueller, Stevan

From: Kirk Billings <kirk.billings@wyo.gov>
Sent: Wednesday, January 30, 2013 1:49 PM
To: Mueller, Stevan
Cc: Cara Keslar; Tanner Shatto; Brad Steidley; Andrew Keyfauver
Subject: June 5, 2012 Exceptional Event Request

The AQD has decided to pursue Wyodak's request to flag the PM-10 data collected at the site 1 monitor on June 5, 2012 under 40 CFR 50.14.

The next step in the process is a 30 day public comment period. In order to move forward, the AQD needs an electronic copy of all the documentation and correspondence submitted during the review process. All correspondence, starting with the original notification to the AQD, the original Exceptional Event packet, any requests for additional information, responses to those requests and other information submitted to the AQD during the review process should be combined into a single, chronologically ordered .pdf document and submitted to the AQD.

Once received, the chronological packet will be posted to the AQD's website and the public comment period will be advertised.

Wyodak's final packet is requested on or before February 15, 2012. Please email it to kirk.billings@wyo.gov

Please contact me if you have any questions regarding this matter.

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Kirk Billings
Wyoming Department of Environmental Quality
Air Quality Division, Monitoring Group
[\(307\) 335-6963](tel:3073356963) (desk)
[\(307\) 438-2470](tel:3074382470) (cell)
kirk.billings@wyo.gov

E-Mail to and from me, in connection with the transaction of public business, is subject to the Wyoming Public Records Act and may be disclosed to third parties.