



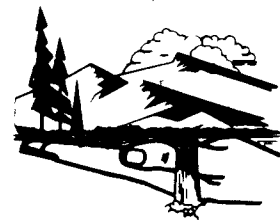
APPENDIX G



REGULATORY CORRESPONDENCE



Department of Environmental Quality



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

Dave Freudenthal, Governor

John Corra, Director

October 27, 2006

RECEIVED

OCT 31 2006

Shell Rocky Mountain Production
Aimee Davison – Permitting
PO Box 1666
Pinedale, WY 82941

RE: Pinedale Anticline and Jonah Field

Dear Ms. Davison:

In the past month or so, the Wyoming Department of Environmental Quality, Water Quality Division (WQD) has been made aware of four water supply wells (located at drill sites) that were impacted due to siphoning, or back-flowing, of contaminated water into the wells. In three of the cases, hydrocarbon contamination was identified in ground water samples collected by the Sublette County Conservation District (SCCD) during the annual sampling program being performed to meet the terms of the Pinedale Anticline Project Area (PAPA) Record of Decision (ROD). In the fourth instance, contamination was suspected by the operator and confirmed by the SCCD. In each case, the well was plumbed or otherwise connected to a tank or reserve pit without proper back flow prevention to preclude the siphoning of water back into the wells.

Due to the number of confirmed cases of contamination and the common practice of connecting water supply wells to oilfield tanks and reserve pits that may contain contaminants, we are requesting that operators in the Pinedale Anticline and Jonah fields immediately initiate the following actions:

1. Identify all water supply wells that are, or have been connected to a tank, tank truck, reserve pit, or production pit.
2. Obtain a ground water sample from each well identified and have it tested for benzene, toluene, ethylbenzene, and xylene (BTEX) using EPA method 8020 or equivalent, and for Total Petroleum Hydrocarbons - Diesel Range Organics (TPH-DRO) and Gasoline Range Organic (TPH-GRO) using EPA method 8015. Ground water samples are to be collected by qualified personnel and in accordance with accepted practices and procedures, such as EPA's "Ground Water Sampling Guidelines.." document available online at: <http://nlquery.epa.gov/epasearch/index.html>
3. Physically inspect all water supply wells on your well sites and take measures to ensure that any potential for back-siphoning is eliminated. This must be accomplished by installing a backflow prevention device that meets the requirements of the WQD Rules and Regulations, Chapter 12, Section 9 (b). These guidelines for back flow prevention are also found in the *Manual of Cross-Connection Control* (9th Edition 1993, Foundation for Cross-Connection Control and Hydraulic Research).

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

ADMIN/OUTREACH
(307) 777-7758
FAX 777-3610

ABANDONED MINES
(307) 777-6145
FAX 777-6462

AIR QUALITY
(307) 777-7391
FAX 777-5816

INDUSTRIAL SITING
(307) 777-7369
FAX 777-6937

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



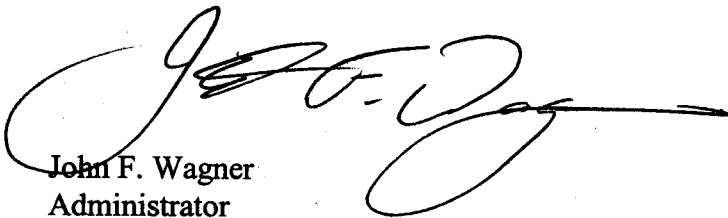
No later than January 1, 2007, please provide the following information to the WDEQ:

- a. 1:24,000 topographic maps, illustrating names and locations of all water supply wells identified in #1, above.
- b. Laboratory reports for all ground water samples collected in #2, above.
- c. Names, locations, and State Engineer's permit numbers for all water supply wells where backflow prevention devices were, or will be installed as per #3, above.

You are reminded that the release of any pollutant into waters of the state, including groundwater, must be immediately reported to the DEQ. The DEQ 24-hour spill reporting number is 307-777-7781. This, and other requirements for responding to a release that has entered surface or ground water are contained within Chapter 4 of Water Quality Division Rules and Regulations; a copy can be downloaded from the WQD webpage at <http://deq.state.wy.us/wqd/>.

We appreciate your assistance with this investigation and your help in protecting Wyoming's water resources. Please contact Mark Thiesse of my staff (307-335-6959) for answers to any questions you might have.

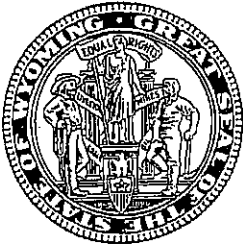
Sincerely,



John F. Wagner
Administrator
Water Quality Division

JFW/bb/6-1013.LTR

cc: Carrie Hatch, Sublette County Conservation District, P.O. Box 36, Pinedale, WY 82941
Dennis Stenger, Field Manager, Pinedale BLM, P.O. Box 768, Pinedale, WY 82941-0768
Gene George, Chairman, PAWG Water Resource Task Group, P.O. Box 2775, Casper, WY 82602
Don Likwartz, Wyoming Oil and Gas Conservation Commission, P.O. Box 2640, Casper, WY 82602
Patrick Tyrrell, State Engineer, Cheyenne
Mark Thiesse, DEQ/WQD, Lander
Kevin Frederick, DEQ/WQD, Cheyenne
Joe Hunter, DEQ/Admin, Cheyenne



Department of Environmental Quality

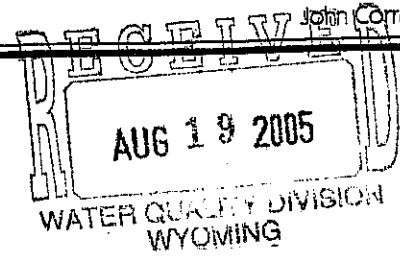


To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Dave Freudenthal, Governor

John Corra, Director

August 15, 2005



Ms. Prill Mecham
Field Manager, Pinedale Field Office
Bureau of Land Management
422 East Mill Street
P.O. Box 768
Pinedale, WY 82941

Re: Groundwater Monitoring, Pinedale Anticline

Dear Ms. Mecham:

The Wyoming Department of Environmental Quality (WDEQ) Water Quality Division (WQD) is writing to provide our concerns with the current groundwater monitoring program that is being implemented in the Pinedale Anticline area by the Sublette County Conservation District (SCCD) for oil and gas operators and the BLM. As you know, one requirement in the Record of Decision (ROD) for the Pinedale Anticline states: *"The operators will conduct a survey and complete a water analysis (e.g., static water level, alkalinity, salinity, benzene, oil, etc.) of all water wells within a 1 mile radius of existing and proposed development, and annually monitor and maintain a complete record of water analysis for all new water supply wells drilled in the project area to evaluate the quality of source options in the event that some mitigation is required."*

The ROD goes on to say that: *"The groundwater monitoring program will include routine measurement of groundwater levels in existing stock wells and groundwater quality to ensure that wells are not being impacted (drawdown of water table and degradation of quality) beyond their intended use as a result of the proposed project."* Currently, oil and gas operators are funding the SCCD to measure groundwater elevations and collect groundwater samples for laboratory analyses in all water wells located within one mile of oil and gas activity.

WDEQ/WQD has been participating in the Water Resource Pinedale Anticline Work Group (PAWG) during the development of the Sampling and Analysis plan (SAP) for the groundwater monitoring program. The current design of the existing monitoring program presents several problems. Briefly, because it is not known which wells are completed within which aquifers, we believe it is impossible to evaluate whether oil and gas activities are impacting ground water resources, or not. For example, a well sampled within one mile of oil and gas operations may be completed within an aquifer that is not susceptible to that activity due to its depth, or lateral extent; it may not even exist within the area of the activity. Not knowing which aquifers are being monitored



prevents us from determining whether current sampling points (i.e. wells) are optimally placed to make such determinations, or not.

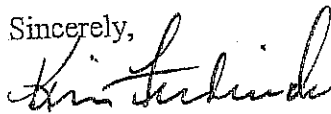
It needs to be made clear that the current sampling program does not provide a reliable, scientific method of determining whether oil and gas activities have impacted either water quantity or quality in any of the aquifers located within the Pinedale Anticline area. Without sufficient information we do not believe that it's reasonable for anyone to presume that favorable results from the current sampling program mean that groundwater quality, or levels, have not been impacted in areas of the aquifer not monitored.

WDEQ/WQD expressed its concerns regarding the shortcomings and limitations of this monitoring program to the Work Group. While the current approach (i.e., sampling of existing wells) meets the objectives of the language in the ROD very well, we do not believe that it meets what we perceive to be the intended objectives of monitoring program.

This concern should also carry over to the Jonah Infill Drilling Project EIS. The latest "BLM Preferred Alternative" language on page 7, Section 2.14.2.1 states: "*Operators would implement a groundwater monitoring program for all water wells in or affected by activities in the JIDPA with annual reports to the BLM, IPO, WESO and WDEQ.*" Once again, the objective of this monitoring needs to be more carefully considered.

If you wish to discuss our concerns in more detail please feel free to contact either me (307-634-8415), or Mark Thiesse (307-332-3144) in the WDEQ/WQD Lander office.

Sincerely,



Kevin D. Frederick, P.G.
Program Supervisor, Groundwater Pollution Control
Water Quality Division, Cheyenne

KDF/bb/5-0911.ltr

c: ✓ Mark Thiesse, WQD, Lander