

TO: Pinedale Anticline Work Group
FROM: Water Resources Task Group
DATE: September 25, 2007
SUBJECT: Minutes of Ninth TG Meeting

CALL TO ORDER:

The ninth meeting of the Water Resources Task Group (TG) was held September 25, 2007 at the Pinedale BLM Office, Pinedale, WY. The meeting was called to order by TG Chair Gene George at 9:05 a.m. George gave a brief overview of the purpose of the meeting, specifically to review the SCCD monitoring report, receive an update from GEO Matrix, discuss TG membership/replacement of members and other topics noted on the meeting agenda.

ATTENDANCE:

An attendance sheet was passed around the room. Participation is listed below:

TG MEMBERS:

Gene George	Tony Gosar	Jocelyn Moore
David Russell	Mark Thiesse	Darrell Walker

BLM STAFF:

Dennis Doncaster	Merry Gamper	Caleb Hiner
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CONSULTANTS/GOVT. AGENCY/PUBLIC:

Delsa Allen	Linda Baker	Heather Cole
Jeff Davis	Donald Duerr	Daneka Ewert
Paul Hagenstein	Therese Hartman	Carrie Hatch
Carmel Kail	Susan Kramer	Dennis Lamb
Janie Nelson	Kathy Raper	Leslie Schwabacher
Jim Sewell	Casey Toner	Kevin VanHook
Alecia Warren	Steve Wright	

SELF INTRODUCTIONS:

Chair George asked everyone present to introduce himself or herself.

MEMBER RESIGNATION:

Chair George announced that Mike Kramer had forwarded a letter of resignation due to his work commitments in another state. George suggested that the TG discuss member replacement later in the meeting.

MINUTES OF THE EIGHTH TG MEETING:

Following discussion of the DRAFT minutes, motion made by Darrell Walker with second by Mark Thiesse to approve minutes of Eighth TG meeting held March 7, 2007. Motion approved.

SCCD MONITORING REPORTS

Kathy Raper, SCCD Surface Water Quality Specialist, discussed the Sublette County Conservation District surface water monitoring data and results. She provided handouts entitled, "*Sublette County Conservation District Pinedale Anticline Field Data 2000-2006*" and "*Summary of Pinedale Anticline Chemical and Field Data 2000-2006*". As per the ROD, SCCD monitors water wells within one mile of every oil and gas production well to detect changes in water quality, particularly any possible impacts of oil and gas exploration/production. (Note: the TG SAP allowed for a rotational sampling so every well was not sampled every year). The SCCD also monitors surface water quality for the same impacts. SCCD contracts with Dr. Brett D. Marshall, River Continuum Concepts, to review and assess the biological condition of the New Fork River, near the Pinedale Anticline, utilizing "bugs" or macroinvertebrates collected by SCCD staff.

Ms. Raper noted that the SCCD data and follow up analysis show no significant impact of surface water quality by oil and gas production in those wells tested by SCCD. Last year's report noting detection of high numbers of sediment tolerant "worms" at NF 30 was not replicated in this year's report disseminated to the TG. It is unknown if last year's findings were based on a single or limited event, possibly land disturbance at the Sand Draw Industrial Site, or other ongoing factors.

DEQ staff would like for the report to include substrate data, a/k/a "pebble data". SCCD staff does collect this information and offered to include it in their future reports.

Heather Cole, SCCD Ground Water Quality Specialist, presented her report entitled, "*Pinedale Anticline Ground Water Data Summary*", which included maps of the Upper Pinedale Anticline Water Wells, Pinedale Anticline Water Wells: Middle Portion and Lower Pinedale Anticline Water Well along with a Case Narrative of ADS 008. Ms. Cole also provided a map entitled, "*Sublette County Conservation District Pinedale Anticline Surface Water Sampling Sites*". She noted that two wells, AMI 237 and AMI 187, had detections of benzene, though the detection levels are below EPA drinking water standards.

DEQ staff requested that ALL hydrocarbon detection(s) in ANY well be reported to DEQ. As all waters within Wyoming are considered waters of the state, any release of hydrocarbons must be reported to DEQ. Due to detections of benzene in the above mentioned wells, the DEQ asked operators in the Anticline and Jonah gas fields to sample all of their water supply wells. This sampling resulted in the DEQ being notified of 89 wells in the Pinedale Anticline and Jonah fields having detections of hydrocarbons. All but three of those detections were below standards. The fact that the SCCD caught the presence of hydrocarbons in these water wells indicates that the monitoring and reporting system is functioning as designed.

RESIDENTIAL WELL OWNER CONCERNS:

Sublette County homeowner Leslie Schwabacher, who resides near oil and gas production wells south of Pinedale, requested via email that the TG consider a change in the well monitoring process as outlined in the SAP. Mrs. Schwabacher asked that all water wells within

the one mile boundary of an oil/gas production well be tested for TPH rather than testing a percentage of wells each year.

SCCD has not detected TPH in any domestic water wells to date, though TPH and BTEX have been found in some oil/gas water wells. DEQ noted that the July 2000 ROD requires sampling for TPH, static water levels, benzene and other chemical components. Mark Thiesse agreed to compose text to modify the current sampling suite to test first for TPH and, if detected, to follow up for BTEX. Thiesse will also research use of EPA Method 8015, for gasoline range hydrocarbons testing protocol in place of the existing EPA Method 1664 test protocol. SCCD requires any property owner whose well is tested to sign a written agreement that information collected by SCCD on their well can be shared with operators and the general public.

Following much discussion, motion by Thiesse with second by Moore to modify the SAP to include TPH testing for all water wells within one (1) mile of an oil/gas well. Motion approved.

BREAK 10:30 – 10:45 a.m.

PRESENTATION BY GEOMATRIX:

Kevin VanHorn, PG, Senior Scientist, GEOMATRIX, introduced Steve Wright to present their proposed plan. Mr. Wright noted that GEOMATRIX was hired by the oil & gas operators to review all existing water quality data and compile this data into a single database. GEOMATRIX will develop a hydrogeological model and potentiometric maps to explain and describe groundwater movement in the Anticline area. Their project will study existing databases and include rock types, conductivity, fracturing, hydrographs and surface water/groundwater interactions. Any data gaps will be identified for potential future fieldwork. After GEOMATRIX compiles the data, they will analyze the existing SCCD data collection and analysis program to determine if any modifications to the Sampling and Analysis Plan (SAP) or the water quality monitoring program in general would lead to a more accurate interpretation of water quality and impacts from oil and gas operations. They anticipate that a DRAFT Report would be available to the oil/gas operators by early to mid November 2007.

Following Mr. Wright's remarks, TG members provided information on additional data sources, including a Water Quality Lab in operation from 1977 to 1994 at Western WY Community College. This lab analyzed 11,000+ water samples from wells between Farson and Hwy 351 and from the Green River, New Fork and East Fork Rivers. GEOMATRIX personnel will follow up on contacting these other sources for additional data.

INTERAGENCY DATA COLLECTION:

BLM Hydrologist Doncaster noted that BLM has released an agreement named "Regional Framework for Water Resources Monitoring Related to Energy Exploration and Development" dated August 31, 2007. The TG water-monitoring plan adheres to the report requirements.

DATA TRANSMISSION PROTOCOL:

As a follow up to the last TG meeting, BLM noted that all data collected for the PAWG would be sent via DEQ to WRDS.

TG MEMBERSHIP:

Chair George tendered his resignation as a member and Chair of the Water Resources Task Group. He has recruited Jim Sewell of Shell Oil, to serve as his replacement.

The TG discussed the continued absence and/or "no shows" of multiple members. J Moore made a motion to:

Ask BLM to advertise for new members

Hold off selecting a new TG Chair until the Spring 2008 meeting

Set the next TG meeting for Spring 2008 when the GEOMATRIX report may be ready

Motion seconded by Mark Thiesse and approved unanimously by voice vote.

ACCEPTANCE OF SCCD REPORTS:

TG Member Walker noted that the TG needed to formally accept the SCCD reports as presented at the meeting.

UPCOMING PUBLIC MEETING:

Thiesse informed those present that DEQ along with the WOGCC were conducting a public meeting today, 9/25/07, beginning at 4:30 p.m. until 7:30 p.m. to share information with the public on produced water handling and well contamination found in the Pinedale Anticline last summer.

PUBLIC COMMENT:

Linda Baker commented on the GEOMATRIX reports, availability of TG minutes on the web and Trend Analysis data

Susie Kramer commented on the safety protocols for closing produced water pits.

ADJOURNMENT:

Motion to adjourn by Jocelyn Moore, second by Darrell Walker. Motion approved and meeting adjourned 12:25 p.m.

Respectfully submitted,

Gene George, TG Chair