

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL **FILED**
STATE OF WYOMING

JUL 31 2006

IN THE MATTER OF THE APPEAL OF 4W)
RANCH, RANCH L. HARSHBARGER, AND) DOCKET NO. Terri A. Lorenzon, Director
JEAN SHERWIN HARSHBARGER AND) 04-3801 Environmental Quality Council
THEIR OBJECTIONS TO NPDES PERMIT)
NOS. 51217, 51233 AND 51373)

DESIGNATION OF EXPERT WITNESSES BY MERIT ENERGY
COMPANY

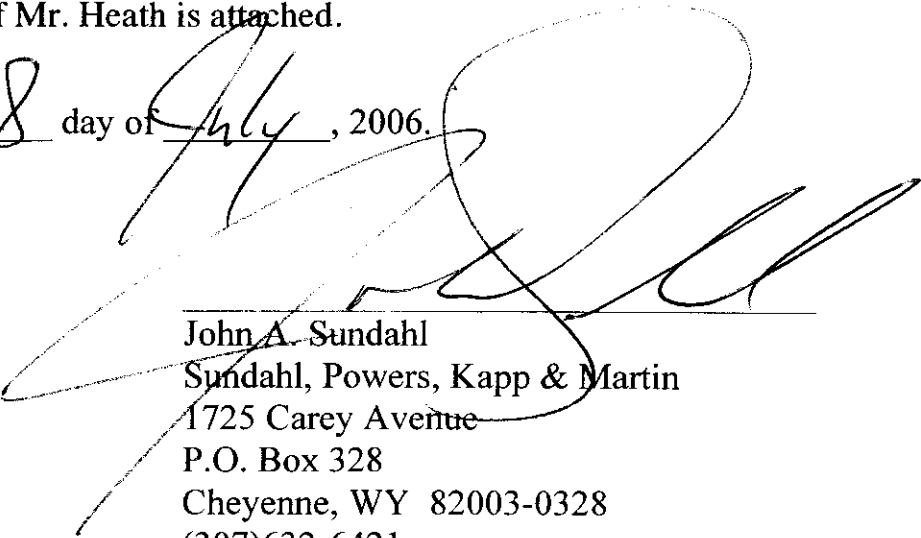
COMES NOW Merit Energy Company, by and through its attorneys,
Sundahl, Powers, Kapp & Martin, and designates its expert witnesses as
follows:

1. Terry L. Friedlan, Gillette Laboratory Manager, Energy
Laboratories, Inc. 1105 West First Street, Gillette, WY 82716, may be
called as a witness and if called will testify concerning the water quality
testing that was performed for the three outfalls of the Merit Energy
Company NPDS Permit WY-005-1373. He will testify concerning his
qualifications and that the sample collection, analysis and reporting is
performed in accordance with the EPA guidelines and methods set forth in
40 CFR 136. He will testify that the results conform with the EPA
guidelines, the methods used, and the results are accurate pursuant to the
guidelines. Mr. Friedlan's resume is attached to this designation.

2. Brian Heath, ARCIDIS G&M, Inc, formerly Greystone Environmental, Inc., 721 East 16th Street, Cheyenne WY 82001, may be called as an expert witness. If called, he will testify that he is one of the authors and consultants for Merit's NPDES Permit. He is familiar with the site, the topography, and the water impoundments/stock reservoirs for the three outfalls. He will testify, if called, that he has located the outfalls and the point of diversion for the 4W Ranch. He will sponsor a topographic map and infrared map showing the Cheyenne River, Antelope Creek, and Porcupine Creek. He will testify concerning his personal observations regarding the lack of water in the drainage in the last two years. He will testify that the distance from the outfalls to the 4W Ranch point of diversion fluctuate between 57.5 miles and 62.4 miles. He has determined the rate of in-stream filtration at 0.099 cfs per mile. Using the total stream miles between outfalls and the point of diversion, if the entire permitted flow from the NPDES Permit were produced, all of the water would be lost due to in-stream infiltration within 9.5 miles. Even if 100% of the water allowed were produced, the water would not reach the lands of the 4W Ranch. He will further testify that using the actual water production of 0.17 cfs, the produced water would be lost due to in-stream infiltration within 1.7 miles. The calculations are conservative, and do not include the stock reservoirs for

each of the three permits, which dramatically reduces flows and promotes evaporation. Simply stated, Merit's produced water does not reach the lands of the 4W Ranch. He will also testify in rebuttal to any testimony produced by others. The resume of Mr. Heath is attached.

DATED this 28 day of July, 2006.



John A. Sundahl
Sundahl, Powers, Kapp & Martin
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P.O. Box 328
Cheyenne, WY 82003-0328
(307)632-6421
Attorney for Plaintiff

CERTIFICATE OF SERVICE

July I certify the foregoing pleading was served on this 28 day of July, 2006, and that copies were served as follows:

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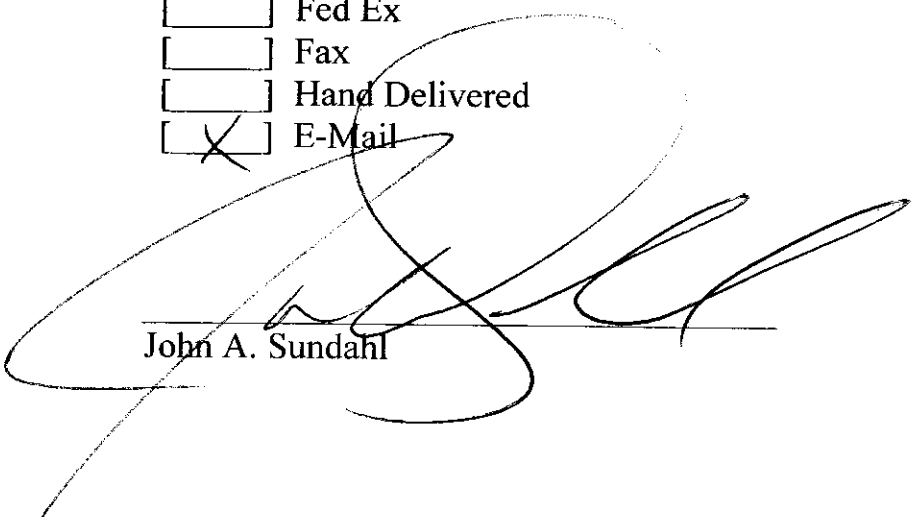
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Jean Sherwin Harshbarger
4W Ranch
1162 Lynch Road
Newcastle WY 82701

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- Fax
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- E-Mail



John A. Sundahl



BRIAN J. HEATH

EDUCATION

- **Masters of Science (Zoology and Physiology)**
University of Wyoming
- **Bachelor of Science (Wildlife Biology)**
Colorado State University – Fort Collins, Colorado
- **Associates of Applied Science (Fish & Wildlife Technician)**
Cobleskill Ag & Tech – Wyoming

SPECIALTIES

- NPDES Permitting
- Wildlife Biology
- T & E Species Surveys
- Field Studies
- Wetland Delineations
- ArcView GIS

CERTIFICATIONS/AFFILIATIONS

- Wyoming Wildlife Society
- USACOE Wetland Delineation

EXPERIENCE **16 Years**

- **ARCADIS G&M, Inc.**
Project Manager
- **Greystone Environmental, Inc.**
Project Manager
- **Wyoming Department of Environmental Quality**
Environmental Senior Analyst
- **Wyoming Game & Fish Department**
Project Biologist
- **Cooperative Wildlife Research Unit**
Research Assistant / Field Assistant
- **Quivira National Wildlife Refuge**
Range Aid

Mr. Heath has been employed with ARCADIS G&M, Inc and formerly Greystone Environmental, Inc. for 6 years and has extensive experience in providing assistance with permitting point and non-point source discharges under the Clean Water Act. He serves as Project Manager for state water permitting for various oil and gas companies within the Powder River Basin. He has developed and submitted numerous Wyoming National Pollutant Discharge Elimination System permit applications to the Wyoming Department of Environmental Quality (WDEQ) for coal bed natural gas projects. These applications included drafting documentation to support produced water discharges did not threaten current beneficial uses associated with the receiving streams.



Mr. Heath has also submitted a petition to the (WDEQ) in support of changing the classification and removing a designated use for Little Buffalo Creek. He performed a Use Attainability Analysis (UAA) that assessed the factors affecting the attainment of the designated use and demonstrated that water regime within the specified drainage was not sufficient to support or sustain aquatic life. Evaluated the physical, chemical, biological, and economic characteristics of the watershed to support the removal of the use and identified the beneficial uses associated with effluent being discharged to this watershed.

In addition to developing permit applications for submission to agencies, Mr. Heath also has relevant work experience on the regulatory side as the WDEQ previously employed him as an NPDES permit writer. He was responsible for reviewing NPDES applications, reviewing existing ambient water quality data, conducting mass balance analyses for pollutants to determine maximum loadings to specific surface waters, establishing effluent limitations to ensure designated uses of receiving waters are maintained and protected, drafting permits and responding to public comments. His responsibilities were to develop water quality based effluent limitations to protect designated uses in northeastern Wyoming and southern Montana watersheds in regards to coal bed methane development. He was also responsible for quality assurance / quality control of water quality data submitted to the WDEQ via discharge monitoring reports and the review and issuance of storm water permits for construction and industrial activities that required coverage under federal regulations within Wyoming. He provided technical assistance on best management practices for storm water controls and conducted inspections of permitted facilities to ensure compliance with permit conditions. Mr. Heat evaluated and collected physical, chemical and biological data for various watersheds under the Beneficial Use Reconnaissance Project (BURP) for waters proposed for listing on the 303(d) list.

Mr. Heath is a formally trained wildlife biologist with over 10 years professional experience with state and federal agencies. He has conducted clearance surveys for threatened, endangered and sensitive species throughout Wyoming for federal and state agencies. Mr. Heath has conducted research on Greater Sage-Grouse productivity, survival and seasonal habitat use within Wyoming. In addition, he has designed and conducted research on waterfowl, shorebirds and passerines within palustrine wetlands and riparian areas in southwestern Wyoming. He has been trained to perform wetland delineations and Ute Ladies'-tresses orchid surveys.

Energy Laboratories, Inc.

Quality Assurance Program

Gillette, Wyoming

Terry L. Friedlan

Gillette Laboratory Manager

Experienced in the examination of many types of environmentally related samples including water, natural gas and crude petroleum.

Education and Academic Training

Associate of Science, University of Wyoming, 1982

Engineering courses in Petroleum Engineering, University of Wyoming, 1982-1983

Organic chemistry, Northeastern Wyoming Community College, 1998

PC Repair and Operation, Northeastern Wyoming Community College, 1994

Visual Basic Programming, Northeastern Wyoming Community College, 2000

Professional Experience

1987 to Present, Energy Laboratories, Inc., Gillette, Laboratory Manager

Responsible for routine analysis and quality control of water, natural gas and petroleum products. Develop test methods, select equipment, train and supervise all laboratory staff.

1983 – 1987, Energy Laboratories, Inc., Gillette, Laboratory and Field Technician

Responsible for water, natural gas, and petroleum products' sampling and testing. Responsible for natural gas meter calibrations in the field.

Professional Organizations

Society of Petroleum Engineers, 1982 to present