



PROPOSAL FOR  
LOCATING GROUND WATER  
INTRUSIONS  
IN THE  
WETLAND JUST WEST  
OF  
DETROIT LAKE

**A.W. RESEARCH LABORATORIES**

- WATER ANALYSIS • LAKE ANALYSIS •
- ENVIRONMENTAL AERIAL PHOTOGRAPHY •

DATE: March 19, 1996

TO: Pelican River Watershed District  
Richard Hecock  
803 Roosevelt Avenue Suite 100  
Detroit Lakes, MN 56502

SUBJECT: **PROPOSAL FOR LOCATING GROUND WATER INTRUSIONS  
IN THE WETLAND JUST WEST OF DETROIT LAKE**

FROM: Gordon Johnson  
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**A.W. RESEARCH LABORATORIES**  
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## PROPOSAL

A.W. Research Laboratories was asked by the Pelican River Watershed District to submit a proposal for mapping ground water intrusions in a selected wetland.

AWRL proposes to conduct an overflight of the selected wetland and locate the ground water intrusion areas using Hyperspectral video in the near Infrared and water penetrating regions of the spectrum.

## PERFORMANCE SPECIFICATIONS

The following conditions are to be met by A.W. Research Laboratories on acceptance of this bid:

1. All materials, supplies, labor, transportation, etc., will be provided by A.W. Research Laboratories.
2. The final report will contain the following:
  - a. A map showing the location of the detected ground water intrusion areas. The map will be made using 7.5 minute USGS quadrangles.
  - b. 35mm color photos used to illustrate the detected areas.
    1. Photos will be numerically correlated with a map for easy orientation.
    2. Photos will be mounted in clear plastic slide pages for storage.
    3. Video data will be provided on a standard VHS tape.
3. Time table for the project:

The overflight will be conducted during the spring of 1996. The final report will be submitted within three weeks or less, after completion of the overflight.

The following conditions are to be met by the Pelican River Watershed District on acceptance of this bid:

1. All payments will be made in accordance with the terms provided in the financial section of this document.

**SPECIFICATIONS FOR LOCATING GROUND WATER INTRUSIONS  
IN THE WETLAND JUST WEST OF DETROIT LAKE**

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Overflight of the selected area within the Pelican River Watershed as outlined in the proposal dated March 19, 1996.

The total cost of the project as specified in this bid with one copy of the final report to be presented to the Pelican River Watershed District not to exceed \$850.00

Flight to be conducted during the spring of 1996.

Payment will be made upon submittal of final report.

**SIGNATURE BELOW CONSTITUTES ACCEPTANCE OF ABOVE SPECIFICATIONS**

\_\_\_\_\_  
RICHARD HECOCK (Pelican River Watershed District) \_\_\_\_\_  
DATE

\_\_\_\_\_  
A.W. RESEARCH LAB \_\_\_\_\_  
DATE

Please return to address listed on the title page of this proposal. The unit price and estimate charges in this proposal will be in effect through December 31, 1995. Beyond that time they will be subject to review and revision.

If additional A.W. Research Laboratories services would be required, such as further attendance at meetings, further research, data analysis, or field sampling they will be provided on a time and material basis confirmed through a written request for services.

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