

Dear Jim and Holly Akenson:

Here is a box of supplies for the sampling you will be doing for us.
Enclosed are:

100 clean bags	12 new syringes	2 trowels
1 folding shovel	12 syringe filters	12 125 ml bottles
2 permanent markers	1 roll of masking tape	1 roll of electrical tape
2 rolls labelling tape	6 eyedroppers	1 waterproof notebook
100 large clean gloves	100 medium clean gloves	1 box Kimwipes

I am sending two sizes of clean gloves because most women prefer the medium and men prefer the large. The electrical tape is to seal the water samples; please wrap it around the neck of the bottles before sending the samples back to us.

I am sending a bottle of Ultrex nitric acid in a separate box. This is a very concentrated acid so it must be sent in a separate package. Use the eyedroppers to put it in the water samples to acidify them. You should wear clean gloves while doing this to protect yourself from the acid. Use extreme caution when using the acid because it is very strong. Discard the eyedropper after you use it.

Dale requested that I send a copy of how to label the samples. I have included it; however, you may write all of the pertinent data (site, date, sample type, etc.) on the bottle or bag in and I will code it before it goes to the lab for analysis.

If you have any question, call me or Kay Finley at 526-9965 or Dale Bruns at 526-0816.

Sincerely

Deborah K. Beutler

Deborah K. Beutler

Jan. 28, '91

Jeff;

It seems we have a CR 10 MET station. After inspecting the apparatus it is apparently set up to monitor air quality; the Filter in the unit is even dirty.

I've enclosed items that I think will help you figure this thing out. An invoice listing all components of the MET station; Roger Sumstines card (designer of the solar air sampling pump station); Also, a list of sampling supplies that are here at TR, however, I believe these supplies are for sampling the intended biosphere reserve. I cannot find any spare filters for the air quality monitoring apparatus.

I was mistaken about the mail plane arriving every 2 weeks. The schedule is every 1st and 3rd Wednesday's of the month. January has 5 Wednesday's so this may not have been mailed until Feb-6.

Work on the Lanham cabin progresses. Lots of elk on the benches but they've not been coming down to the lower pasture.

That's about it,

Ray



Idaho National Engineering Laboratory

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Electronic Engineering

ROGER L. SUMSTINE

Engineering Specialist

*Designer of Solar Air
Sampling Pump System*

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FAX (801) 752-3268

PACKING LIST INVOICE

21877

DUNS: 06-798-0730

DATE
22 May 89

SHIP TO:

UNIVERSITY OF IDAHO
TAYLOR AIR QUALITY
158-K171 301848
E.O. GARTON FORESTRY
MOSCOW, ID 83843

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UNIVERSITY OF IDAHO
CONTROLLER'S OFFICE
ROOM 101 AD OFFICE BLDG
MOSCOW, ID 83843

DUE DATE: 21 Jun 89

YOUR ORDER NO.	OUR ORDER NO.	DATE SHIPPED	VIA	FOB POINT	TERMS
108638	18485	22 May 89	UPS/PIE	Logan, Utah	NET 30 DAYS

QTY. ORD.	QTY. SHP'D.	DESCRIPTION
1	1	LI200S LI-COR SILICON PYRANOMETER
1	1	LI2003S LICOR PYRANOM BASE & LEVEL FXT
1	1	TE525 TEXAS ELECT BUCKET RAINGAGE
1	1	SM192 STORAGE MODULE W 192K MEMORY
1	1	SC532 9 PIN PERIPHERAL RS232 INTFC
1	1	PC208 DATALOGGER SUPPORT SOFTWARE
1	1	SBP27 SETRA BAROMETER
1	1	MP100F ROTRONIC TEMP & RH PROBE W/8-3
1	1	CR10M MEASUREMENT AND CONTROL MODULE
1	1	CR10WP CR10 WIRING PANEL
1	1	CR10KD KEY/DIS FOR CR10
1	1	CM10 TRIPOD AND GROUNDING KIT
1	1	MSX10 10 WATT SOLAR PANEL & MOUNTS
1	1	021/LA ENCL W/BATT/CHGR/MTS & SHIELD
1	1	05103 RM YOUNG WIND MONITOR
1	1	019 CROSS ARM SENSOR MOUNT
1	1	025 PYRANOMETER CROSS ARM STAND
1	1	A21REL-12 12 V/FOUR CHANNEL RELAY DRIVER
1	1	41004-5X RAD. SHIELD W/SPECIAL BUSHING
1	1	ESTIMATE FOR INSTALLATION AT
1	1	SPECIAL - MILEAGE 600 MI AT

Sub-total

CM10 & 019 shipped via CF

This completes your order

21X, CR10, CR7X AND SM716/SM192 WARRANTED FOR TWO YEARS FROM SHIP DATE. ALL OTHER PRODUCTS MANUFACTURED BY CSI WARRANTED FOR ONE YEAR EXCEPT KH20 TUBES WARRANTED FOR 90 DAYS.

5 PIECE(S) IN SHIPMENT/SHORTAGE MUST BE REPORTED WITHIN 7 DAYS

By acceptance of the above described property, goods and equipment (collateral), the purchaser grants Campbell Scientific, Inc. (CSI) a security interest, until payment in full, in the collateral above described, continuing if the collateral becomes a part of a whole, product or mass, together with all proceeds and/or products, and upon failure to pay as agreed, CSI shall have all rights and remedies of a secured party under applicable state statutes.

Buyer will be charged a **finance fee** of **1½% (18% annual interest)** per month of any amount past due until paid. Buyer will also be charged reasonable attorney's fees should collection by suit be required.

2.1

INEL environmental monitoring - pollutant monitoring

1. meteorological station

- temperature
- wind
- solar radiation
- precipitation
- barometric pressure
- relative humidity
- air quality filter

1. placement of station
2. down loading data
3. filters, other materials - shipping for analysis
4. Molinoux gets weather data

2. monitoring

- a. air quality - change air filters every 2 weeks
- b. download met stn data weekly
- c. annual sample collection - trace metals
 - permanent plots: biomass, % cover, litterfall
 - destructive plots: soil, litter, moss, lichen
- d. water samples?
- e. quality assurance checks

follow-up
Wheraman
1985

grant funding

1. sampling materials, shipping
2. lab analysis 2/7 Gordon
K. Nelson
USFS, IDFG - M. Lebel

Wayne Marshall

Jim Rich

Oz Garton

Mike Falter

Steve Bunting / Penny Morgan

Greg White - Ed's

meeting - 3 weeks of January