BROOKHAVEN BULLETIN

Vol. 36 - No. 4 January 29, 1982

BROOKHAVEN NATIONAL LABORATORY

Doug Humphrey

To share their pride in the results of initial testing of LM-3, Magnet Division technicians made these signs and placed them along the main entrance to the Laboratory.

Cable Magnet Gets Even Better

Six large aperture, superconducting cable magnets have been built and tested by the ISABELLE Magnet Division. Despite differences in their length and the production methods used to build them, all six have had one thing in common: each one required almost no training to reach its short sample limit, attaining magnetic fields well over the design field of 50 kilogauss (kG) on its first quench.

The six magnets have included three five-foot dipoles (CM-1, 2 and 3) and three full-size, 15-foot prototypes (LM-1, 2 and 3). LM-3, the latest to be tested, brings the division two steps closer to a true production magnet. On earlier dipoles, the laminations were put together by a labor intensive technique and the cable used was surplus from Fermilab. LM-3 features laminations which were punched to the ISABELLE design and glued together in a production fixture. The cable used in LM-3 was manufactured to ISABELLE specifications.

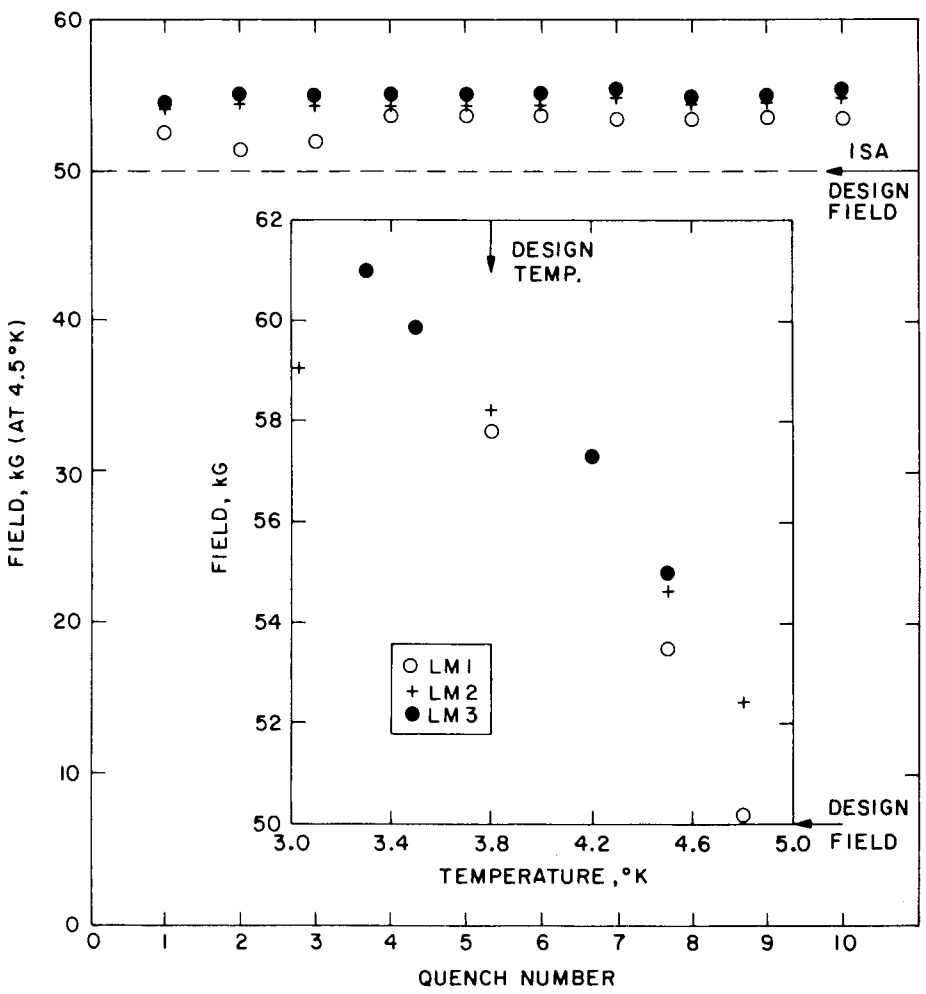
Testing of LM-3 began on January 20. At an initial temperature of 4.5°K, the magnet reached a field of 55 kG before quenching - in effect, turning itself off. When temperatures were lowered to 3.3°K earlier this, week, the magnetic field climbed to 61.1 kG.

This is the first time a cable magnet has gone over the 60 kG mark. Robert Palmer, magnet designer and head of the Magnet Division, said, "We tested a short sample of the new cable first, so we knew it was capable of reaching 60 kG - if the temperature could be lowered sufficiently. Doing this was quite an achievement, requiring a tremendous improvement to the cryogenic system.

Bob Louttit, head of the Cryogenics Systems Division, credits mechanical engineers Joe Bamberger and Don Brown with formulating the idea that made the cryogenic test system capable of reaching such low temperatures. Using one helium compressor as a vacuum pump helped drop temperatures to as low as 3°K during testing of LM-2.

As impressive as these high fields and low temperatures are, the critical thing is really the operating margin they provide for ISABELLE. Even at temperatures higher than the 3.8°K standard for ISABELLE the magnets should operate at magnetic fields higher than the 50 kG ISABELLE design field (see chart). "We could lose a lot of cooling," Palmer explained, "and ISABELLE could still work as it is designed to. It's good to have a lot of margin."

(Continued on page 3)



As the top of this graph shows, when tested at 4.5°K, all three full-size cable magnets consistently attained magnetic fields in excess of 50 kG. The inset illustrates how the magnetic fields reached by each dipole increased as its temperature was lowered.

The View Right Now

Because of the general concern that persists about the funding pattern of the Laboratory, I wish to update the statement of George Vineyard which appeared in the December 11 issue of the Bulletin. Our most recent information on the present fiscal year budget now allows me to state with reasonable assurance that our present personnel level and the budget are in balance.

The President presents his FY 1983 (Oct. 1, 1982 — September 30, 1983) budget to Congress on February 8. The budgetary process then moves to the Congress where specific allocations presented in the President's budget may be increased, decreased, or stay the same, depending on the decision of the various authorization and appropriation committees. We hope the FY 1983 budget will be at a level which allows us to continue all of the top flight scientific and technical programs of which we can be so proud.

However, if the President's budget drastically cuts or eliminates programs for FY 1983 and if, by early spring, it seems improbable that Congress will reverse these actions, then the Laboratory must start to bring the number and skills of staff in line with the projected budget. We are all working hard to prevent this from happening and our major weapon in this battle is the continued high level of our programs and facilities.

—Nicholas P. Samios
Acting Director

Wolf Heads Chemistry

Alfred P. Wolf, who has become internationally known for his scientific research, will become chairman of the Chemistry Department on February 1 for a period of five years.

But, says Wolf, he does not intend to devote all his time to administration. He will remain coordinator of the positron emission transaxial tomography program (PETT) and will retain control of cyclotron research. The PETT program is a major study of metabolism and neuroscience being carried out by the Chemistry and Medical Departments, the New York University Medical Center and the University of Pennsylvania. PETT VI, the latest design in a machine built only for doing brain scans, is expected to be operating at BNL by the end of February.

Wolf will delegate responsibility for radiopharmaceutical research and hot atom chemistry to other members of his group.

As to department plans, Wolf says, "We are looking forward to the NSLS going into full operation this spring because we have a sizable commitment to research at that facility. Also, this spring, we expect to have the 'baby' cyclotron available for research."

Assisting Wolf in the administration of the Chemistry Department will be Ralph Weston as deputy chairman, and Marshall Newton, assistant chairman.

Wolf, a senior chemist, joined the staff of the Chemistry Department in 1951 upon receiving his Ph.D. from Columbia University. He has taught at Columbia over the years and it is one of his regrets that because of his new duties, he will probably have to relinquish his adjunct professorship at the end of the spring semester.

Mort Rosen

Alfred P. Wolf

He is an advisor to the Italian National Research Council and the German Ministry of Science, and is a consultant to the International Atomic Energy Agency. He also serves on various subcommittees of the Society of Nuclear Medicine and other national and international committees dealing with basic research in chemistry and in radiopharmaceuticals.

Wolf was the recipient of the 1971 American Chemical Society Award in Nuclear Applications in Chemistry, and in 1981 he received the Society of Nuclear Medicine's Paul C. Aebersold Award for outstanding achievement in basic science applied to nuclear medicine.

WIS Seminar

Dr. Darleane Hoffman of Los Alamos National Laboratory will present a seminar entitled "A Field Study of Radionuclide Migration from a Nuclear Explosion Cavity" at 3:30 p.m., Monday, February 1, in the Hamilton Seminar Room (Chemistry). The talk, sponsored by Women in Science, is open to the entire laboratory community.

Coffee will be served at 3 p.m. in the seminar room. A buffet dinner, open to all, will be served at 5:30 p.m. in Room A, Berkner Hall, preceded by a cash bar at 5 p.m. Make reservations by calling the Cafeteria at Ext. 3541. The price is $6.50.

Employees Note:

Next week Wednesday, February 3, don't be alarmed if you see the High Flux Beam Reactor surrounded by emergency vehicles with flashing lights. It will just be a drill — for a few BNL groups —on the HFBR's emergency plan. The drill will be repeated the following week, February 10.

Both drills will involve only the Reactor Division, Safety and Environmental Protection Division, the Public Relations Office, and certain individuals from other BNL groups.

The rest of the Lab will have business as usual.

BNL Lecture On Nuclear Waste

The growth of nuclear power technology is challenged by reactor safety, system decontamination of water reactors and safe long-term isolation (mined geologic disposal) of high level radioactive wastes. So says M. Sue Davis, deputy division head of the Nuclear Waste Management Program in the Department of Nuclear Energy.

Doug Humphrey

M. Sue Davis

Davis will give the next Brookhaven Lecture, on Wednesday, February 10, at 8 p.m. in Berkner Hall. Her topic: "Radioactive Waste Isolation: A New Challenge for Science."

She will talk about some of the problems associated with waste isolation. The High Level Waste Technical Assistance Program at Brookhaven conducts an on-going critical evaluation of Department of Energy efforts to produce a waste package that will meet Nuclear Regulatory Commission criteria. The BNL program evaluates the chemical, physical and mechanical properties of candidate waste package materials, for example, glass waste forms, metallic container systems and natural backfills.

Davis will also review performance criteria proposed by regulatory agencies in the United States, criteria which require prediction of waste package behavior over long periods of time.

During the course of her lecture, Davis will give a historical perspective on the scientific and political aspects of nuclear waste isolation. She will also discuss the rationale behind the present national policy and talk about the technical problems generated by this policy.

M. Sue Davis is a physical chemist who holds a Ph.D. from the University of Rochester. She came to BNL in 1974 and worked for several years on various aspects of photosynthesis.

A year ago, she joined the Waste Management Division of DNE. In several months, she became group leader in the High Level Technical Assistance Program and then deputy director of that program. She has developed an expertise in a new and important field related to decontamination of water reactors.

Before the lecture, a buffet supper is served at 6:30 p.m. at the Brookhaven Center. The price is $6.50, and reservations should be made by calling Ext. 3541 before 5 p.m. on the day of the lecture.

New Awards For 10 to 35

Service awards have been a long-standing tradition at BNL. Back in 1957, the first "Decade of Service" pins and certificates were awarded on December 11 to the first group of employees who had completed ten years of service at BNL on or before December 31, 1957.

As reported then in the Bulletin Board, the presentations were made to 408 employees during a ceremony in the gymnasium, with afterwards an "opportunity provided for these 'old timers' to chat and reminisce."

Now, 35 years later, 64 of these original "old timers" are still with the Lab. This year, they and the 10, 20, 25 and 30-year award recipients will be the first to take advantage of a re-vamped service awards program.

As explained by Personnel's Dorothy Marelli, who oversees the program, the certificates will remain the same, but new awards will be given out:

10 years - Gold pin engraved with "BNL 10."
20 years - Pen and pencil set, "BNL 20" engraved on clips.
25 years - Wristwatch, ladies and men, "BNL 25."
30 years - Gold pin, "BNL 30."
35 years - A choice of a mantel clock or a 35mm camera, "Brookhaven National Laboratory 35 Years Service" inscribed on clock.

Marelli says a great deal of thought was given to restructuring the service awards program so that the awards will still be meaningful to employees. Gone are the multiple choices of awards, but also eliminated are the long waits to get the proper choices.

With the new program, each significant milestone with BNL is celebrated with an award special to that particular time period. Also, the Director's Office will host a dinner each year to honor 25, 30 and 35-year employees for that year.

The new program is based on recommendations made by a Lab-wide committee appointed by George Vineyard about a year ago. The committee's report was used by the Personnel Division in developing the specifics of the new program.

Service Awards

The following employees received service award certificates during the month of January:

30 Years

Norma G. Gillespie ..... Medical
Martin F. Montag ..... Reactor
Edward V. Sayre ..... Chemistry
Rudolph M. Sternheimer ..... Phys.

25 Years

Charles Bachsmith ..... Enrg. & Env.
James P. Clint ..... Accelerator
Joseph R. Cuccia ..... Accelerator
Doris M. Franck ..... Chemistry
Georginia A. Fuld ..... Accelerator
Josephine C. Gazzola ..... Fiscal
Stephen Gracia ..... Central Shops
William A. James ..... Medical
Richard Lingg ..... Accelerator
Dmitri Stephani ..... Instrumentation

20 Years

Elliot H. Auerbach ..... Physics
Neal R. Carciello ..... Energy & Env.
James R. Curto ..... Accelerator
Robert T. Diem ..... Accelerator
Edward Dubaniewicz ..... S.&M.
Bayard C. Fenner ..... S.&M.
Frank P. Foster ..... Physics
George W. Harris ..... Plant Engrg.
Dennis F. McKenna ..... S.&E.P.
James A. Pontieri ..... Plant Engrg.
Joseph F. Radich ..... Plant Engrg.
William M. Ross ..... Central Shops
William J. Schneider ..... Accelerator
Antonia M. Weiss ..... Physics
Thomas A. White ..... Physics
Josephine M. Wikan ..... C. & Procure.

10 Years

Lindora Boyd ..... Medical
Earle E. Edwards, Jr. ..... S.&E.P.
Kenneth J. Ellis ..... Medical
John D. Smith ..... Accelerator
Frank W. Stubblefield ..... Instr.
Harry L. Ulyat ..... Medical

The Nuts And Bolts of Cost-Cutting

Last week, the Bulletin surveyed the report of the Cost-Cutting Committee as it related to policy issues, Lab efficiency and productivity.

The other half of the committee's report is concerned with more ordinary matters such as withdrawing certain stock items, recycling others, and taking further energy conservation measures. These suggestions came from every quarter of the Lab and dealt with "the nuts and bolts of Laboratory operations." As noted in the report, most of these suggestions did not require approval by the Directorate and so were forwarded directly to the appropriate units for action.

For instance, facial tissues have been free-for-the-asking apparently since the Lab began. They have now been discontinued as a stock item. Among other items that will no longer appear on the shelves are stopwatches, feather dusters, an assortment of batteries, plastic attache cases, spark plugs, tires, aluminum foil and insecticide.

In the past, twist drills dulled in use were discarded and new ones drawn from stock. Now a plan is in the works to have drills over one-quarter inch collected, resharpened and recycled. This will become permanent practice if the resharpening proves to be a money saver.

Also going forward on a trial basis is the salvaging of excess small hardware and usable components of discarded electrical and electronic equipment. Excess small hardware scattered throughout the Lab is a result of the American joy of packaging — having to take, say 10 items when only three are needed. The extra bits and pieces will be collected and drawn upon by all Lab users.

Paper, its use and abuse, was the subject of several recommendations. Secretaries were asked to use Xerox paper, instead of bond, for second and following sheets of correspondence as Xerox paper turned out to be cheaper by half.

The printing and distribution of reports, notices, circulars, etc. to all and sundry came in for attention. The committee politely suggested that control be exercised and such reports, etc. be sent only to those truly interested. Individually addressed notices are wasteful said the committee. In most instances, copies sufficient for bulletin board distribution would be enough. Where each employee should receive a notice, the appropriate number of copies delivered to unit secretaries for dispersal would cover the situation nicely.

And when there are a lot of copies of anything to be run off, the committee emphasizes that this be done at Quick Copy and not on the small machines found in every group. Using the Quick Copy service saves the Lab considerable dollars.

Printing eight lines per inch on computer stock paper of 8 1/4"x14" is being investigated. It is thought that this would be a cost saving over the current practice of six lines per inch on 11"x14" paper.

In a couple of areas, the Lab was already ahead of the committee: the use of energy saving light bulbs and the installation of flow restrictors on sinks and showers. The former have been in use since 1977, i.e. 34 watt fluorescent lamps instead of the standard 40 watt. And beginning in 1978, the Lab installed over 300 flow restrictors on the appropriate facilities.

As to the use of Lab telephones for personal business, the committee found that some people were under the impression that the Lab paid a flat rate for local calls, no matter how many. Not so. Every single call is charged to the Lab and the cheapest local call is eight cents for five minutes. It was recommended that call lists should be reviewed for excessive personal usage.

Mention was made in the Bulletin last October of a workweek consisting of four 10-hour days. On further examination the committee found the suggestion to be impractical for Brookhaven and concluded that "the 4-day week will have to await federal law changes."

A complete file of all the suggestions the committee received will be maintained for use when needed.

Window Check

An energy conservation reminder: Did you lower the storm window in your office? Anyone with a problem window should call Mark Culp, Ext. 5299, or Ed Murphy, Ext. 3466.

Sci.-Tech. Staff Visits

Doug Humphrey

Gerald E. Jenks, Minority Staff Director of the House Science and Technology Committee, talks to BNL Associate Director Martin Blume at the negative ion source, a part of BNL's fusion program. With Jenks on the day-long tour of the Laboratory was Lee Wallace (right), Minority Energy Director of a Sci-Tech subcommittee, Energy Research and Production. Besides fusion programs, the Washington visitors were briefed on ISABELLE, the NSLS, fission programs, electric energy systems and energy storage.

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Published weekly
for the employees of
BROOKHAVEN NATIONAL LABORATORY

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Cable Magnet (Continued)

Right now, the Magnet Division is concentrating on improving field quality, perfecting the trim coil package and devising a quench protection system, if it is needed.

The magnet test group, led by Ed Bleser, is conducting quench protection tests on LM-2. In these tests, physicist Alan Stevens is making every effort to damage the magnet. This is necessary in order to devise a system that could protect future magnets against damage during a quench. But thus far, Stevens has been unable to hurt LM-2; so perhaps no protection system will be required.

Next month, short dipole CM-4 will be used to test a complete trim coil package and new approaches for improving field quality.

Cafeteria Menu

Week Ending February 5, 1982

Monday, February 1		
Corn chowder	(cup)	.60
	(bowl)	.70
Ham & potato au gratin & 1 veg.		1.75
Meatcakes & onions w/1 veg.		1.75
Hot Deli — Corned beef	(bread)	1.75
	(roll)	1.85
Tuesday, February 2		
Lentil soup	(cup)	.55
	(bowl)	.65
Pork & cabbage crisp		1.70
Sauteed chicken breast over rice		1.75
Hot Deli — Knockwurst & sauerkraut on rye		1.75
Wednesday, February 3		
Vegetable beef soup	(cup)	.55
	(bowl)	.65
Beef stew over noodles		1.80
American chop suey & 1 veg.		1.70
Hot Deli — Top round of beef	(bread)	1.75
	(roll)	1.85
Thursday, February 4		
Old-fashioned bean soup	(cup)	.55
	(bowl)	.65
London broil w/mushroom gravy & 1 veg.		1.85
Chicken pattie parmesean w/spaghetti		1.70
Hot Deli — Roasted turkey breast	(bread)	1.75
	(roll)	1.85
Friday, February 5		
Fish chowder	(cup)	.60
	(bowl)	.70
Macaroni & cheese & 1 veg.		1.70
Turkey chow mein over rice		1.70
Hot Deli — Fried clam roll		1.85

Note: The cafeteria will be closed for painting on Saturday, January 30.

Black Artists On Stage

Black History Month begins Monday. In celebration, the BNL Afro-American Culture Club will sponsor five performances by black artists during February. The events, which will all be held in Berkner Hall, will include:

- **Gospel Extravaganza,** Saturday, February 6, 7 p.m., $5.
- **Elvira Green in Concert** (opera), Thursday, February 11, 8 p.m., $3.
- **The Many Facets of Lindamichellebaron** (poetry), Thursday, February 18, 8 p.m., $2.
- **Hats** (dramatic tribute to Harriet Tubman), Saturday, February 20, 8 p.m., $6.
- **Bill Mackey Dance Theatre,** Friday, February 26, 8 p.m., $8.

Tickets can be purchased individually, or at a special rate of $20 for all five performances, from Berthel Becton, Ext. 4432; Mary Durham, Ext. 7981; Renee Flack, Ext. 3316; Michele Henderson, Ext. 4303; Diedre Seymore, Ext. 5037. Or send a check, payable to BERA, to Afro-American Culture Club, P.O. Box 441, Brookhaven National Laboratory, Upton, N.Y. For more information, call 286-2673 from 9 a.m. to 5 p.m.

Scholarships Up

Beginning with the 1982-83 academic year, new recipients of the AUI Trustee Scholarships will receive $1700 per year. Those currently holding scholarships will receive $1600 each year of renewal. These amounts replace the $1500 per year which has been in effect since 1980.

PSI Proposal

A proposal to start a BNL chapter of Professional Secretaries International (PSI) will be presented by Pat Towey of DEE at a meeting in Room B, Berkner Hall, on Wednesday, February 3, at noon. She is past president of the Queen Anne Chapter of PSI, formerly the National Secretaries Association Those who attend the meeting should bring their lunch.

Arrivals & Departures

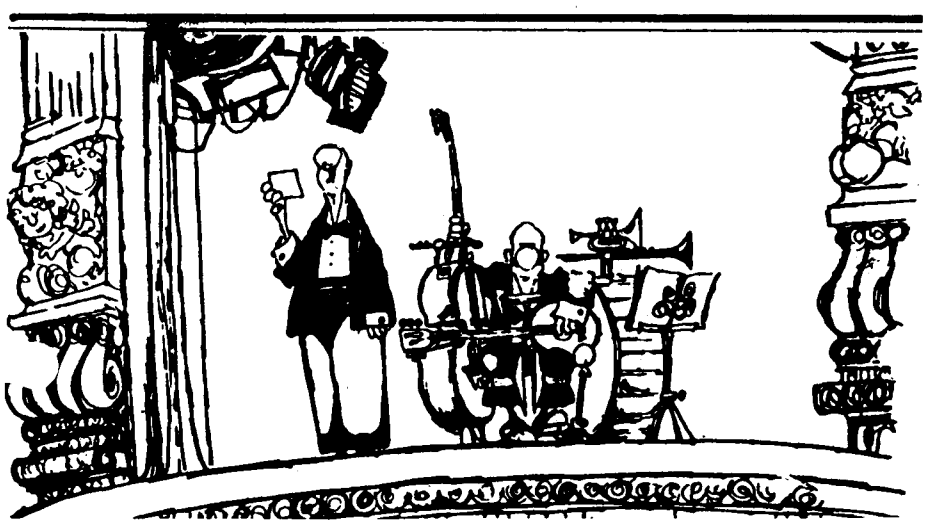
Arrivals

John C. Bilello ..... Energy & Env.
Seyavash Karimian ..... Nuc. Enrg.
Kiyoichiro Motoya ..... Physics
Michael G. Shepard ..... Enrg.& Env.

Departures

This list includes all employees who have terminated from the Laboratory, including retirees:

Michael A. Fella ..... S.& E.P.
Paul J. Groncki ..... Energy & Env.



". . . Due to recent federal cutbacks in aid to the performing arts, there will be some changes in this year's production of Beethoven's Ninth Symphony . . ."

Pineapples & Pits

Looking for a winter project? The Cooperative Extension Association of Suffolk County suggests experimenting with pineapple tops or avocado pits to grow interesting, inexpensive houseplants.

The large, hard pit of the avocado may sprout slowly, but once it starts, it will grow a tall stem and a bunch of long, floppy leaves very quickly. To start an avocado, remove the pit from the plant and wash it. Let it dry for a day or two, then remove the papery brown coating. Bury the broad rounded half of the pit in moist potting soil, leaving the pointed half exposed. Moisten the soil whenever the top begins to feel dry. When the pit cracks and a shoot of leaves appears, place the pot in a sunny window.

To grow a pineapple plant, twist the top off the fruit. Remove several lower leaves to expose at least $^1/_2$" of stem. Then insert the top in moist sand or vermiculite. Keep moist but not soaking wet so the pineapple does not rot. In a month or so, when it grows roots, carefully transplant it into regular potting soil and place on a sunny windowsill. The pineapple may eventually bear fruit. Until then, its long, spiky leaves make it an interesting foliage plant.

Bowling

Pink League

High games were bowled by D. Johnson 172/161, H. Keeley 167/167, E. Kristiansen 188, M. Connelly 193, J. Thiede 173, R. Rosati 190/168, C. Beckner 197/184.

White League

The Dips are the winners of the first half. High games were bowled by P. Manzella 190/191, K. Conkling, 199/177, L. Petro 182, R. Flack 187, S. Smith 198/178, B. Jones 208, J. Griffin 202.

Red & Green League

R. Wiseman rolled a 228/232, C. Bohnenblusch 224, A. Almasy 212, C. Neuls 211, J. Cochrane 254, R. Eggert 200, J. Connelly 202/226, J. Petro 212, R. Larsen 203, W. Kollmer 235, M. Iarocci 213, E. Sperry IV 201.

Purple League

The Pen Macs are the winners of the first half. High games were bowled by W. Milian 247/587 series, A. Pinelli 214/198/581 series, M. Connelly 178, M. Austin 175, J. Pinelli 172, C. MacDougall 191/180.

R/C Airplane Club

At noon on Tuesday, February 2, the R/C Model Airplane Club will hold a meeting in Berkner Hall to discuss the upcoming indoor show. Also on the agenda will be a demonstration of a pattern design model and participation awards.

Tonight!

Charlie Zein & the Newports. . .
Mr. "T" in Xenon 488. . .
Fine Food & Drink. . .
The Showtime Revue. . .
It's all yours
at the
BERA Winter Dance
Tickets $3
Cash Bar Opens 8:30 p.m.
Music Starts 9 p.m.

Swimming Pool

The swimming pool will reopen on Monday, February 1.

Schedule:

Monday through Friday
(Employees Only)
11:00 a.m. to 1:30 p.m.
(Employees/Families/Guests)
5:00 p.m. to 9:30 p.m.
Saturday and Sunday
(Employees/Families/Guests)
1:00 p.m. to 6:00 p.m.

Fees:

Season Tickets — three months
(fees are not prorated)

Individual Membership	$15.00
Family Membership	$20.00
Daily Admissions —	
Employee/Family Member	$1.25
Employee/Family Member	$1.25
Guest	$1.75

Season tickets for the coming three months, February 1 through May 2, will be sold at the pool starting opening day.

Note: The swimming pool is closed on all Laboratory holidays.

Guest Ruling (Applies to all recreation facilities)

One Guest — An employee is allowed to bring one guest per visit without special permission or prior arrangement. The guest must be accompanied by the employee.

Two to Five Guests — Advance arrangements for two to five guests may be made at the Recreation Office. (No more than five guests per employee is ever permitted.) When such an arrangement is made, the Recreation Office issues an admission card stating the sponsor's name and life number, the number of guests permitted, the date of visit, and the facility to be visited. Guests must be accompanied by the employee, who will be requested to show the admission card at the main gate and at the swimming pool ticket desk.

Sponsoring employees are responsible for their guests during the entire time they are on site.

1982 BNL Holidays

In anticipation of the Administration accepting the Cost Cutting Committee's recommendation to close the Laboratory the week between Christmas and New Year's Day, the two floating holidays have been scheduled in that week.

New Year's Day	Friday	January 1
Washington's Birthday	Monday	February 15
Memorial Day	Monday	May 31
Independence Day	Monday	July 5
Labor Day	Monday	September 6
Veterans' Day	Thursday	November 11
Thanksgiving Day	Thursday	November 25
Day after Thanksgiving	Friday	November 26
Christmas Eve	Thursday	December 23 (½ day)
Christmas Day	Friday	December 24
Floating Holiday	Monday	December 27
Floating Holiday	Tuesday	December 28

Note: Since New Year's Day, January 1, 1983, falls on a Saturday, it will be celebrated on Friday, December 31, 1982; however, it still will be considered a 1983 BNL holiday.

Volleyball

Mixed League Standings as of 1/25/82

A Division	
Dinkers	11-4
Teddybares	10-2
Mixed Ups	9-3
High Society	7-8
Nuts & Bolts	5-7
Las Bolas	2-10
Leftovers	1-11
B Division	
Puff & Stuff	9-0
Semi-Tough	6-3
TNT	5-4
KMA	3-3
Quirks	1-5
Big Boopers	0-9

Open League — Week of 1/20/82

Burnouts over Pickups, 15-3, 15-3, 15-10, and 15-11. Toga over Roga, 15-3, 15-3, 15-4, and 15-4. Spikers over Line One, 15-13, 16-14, 15-10, and 15-4. Spikers over Pick-Ups, 15-7.

Congratulations to the Spikers who have won the first third.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants. In keeping with the Affirmative Action plan, selection decisions are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

The vacancies listed below have been exempted by the Director's Office from the current freeze on open requisitions.

LABORATORY RECRUITMENT: Opportunities for present Laboratory employees.

1652. PLUMBER A - Group Leader. Plant Engineering Division.

OPEN RECRUITMENT: Opportunities for present Laboratory employees and outside applicants.

1653. BIOLOGY ASSOCIATE - Requires BS in chemistry or physics or equivalent background. Must also have working knowledge of computer programming and applications. Will assist in basic research into protein structure by running protein crystallography experiments at HFBR, analyzing the data collected, operating the computer graphics system, and modelling protein interactions. This work is related to a grant from the National Institutes of Health. Biology Department.

Autos & Auto Supplies

71 MALIBU - 6 cyl., good mi., new tires, batt. Excel. running cond. $450. 289-6073.

SNOW TIRES - (2) brand new on Ford rims, Goodyear Tiempo G78-14 stl. belt radials. $100/both. Joe Bush, Ext. 3284.

71 VW SQ. BACK - new tires, excel. running cond. $650. 744-0742.

73 OLDSMOBILE - excel. running cond., am/fm stereo, 8-track tape, full power. Ext. 4835 or 289-9811 after 6 p.m.

77 KAWASAKI - KD-100 motorcycle. Excellent. $275. 472-1473.

73 VW SQ. BACK - station wagon. Excel. cond., rebuilt eng. w/guar. New radials, 28 mpg. $1,800. Ext. 3057.

79 JEEP - 3/4 ton pick-up, 4 wheel drive, 10,000 mi., new snow plow, A-1 cond. $7,500; 76 Ford Granada, p/s, p/b, a/c, good cond. $1,600. 728-3364.

68 FORD SHOP MANUALS - (2) F78-14 Ford rims & 1 snow tire, locking gas cap. 475-0831.

SHOCKS - for Duster, Sears heavy-duty plus. $5/pr. Ext. 2493.

TECUMSEH ENGINE - 3 hp, horizontal drive, rebuilt, complete. Asking $75. Ray, Ext. 4479.

YAHAMA MOTORCYCLE - 250cc - 2 cycle eng., new brakes, saddlebags, clean. Roy, Ext. 4664 or 744-8779.

TIRE RIMS - Chevrolet, 14" wheel. $5/ea. Charlie, Ext. 4758.

81 HOND 650 - plexifaring, windshield, travel trunk, 2500 mi., mint. cond. $1,995. Call 281-8274.

WINDSHIELDS - front & rear, for '62 Chevy, best offer. Joe, Ext. 2556.

73 SAAB - eng., drivetrain, tires good., body so/so, good "station" car. Best offer over $499.99. Ext. 2740.

TIRE - new, 10-15 LT, Firestone All-Terrain, $35; two 15" Chrysler rims, $5/ea. Otto, Ext. 4406.

STEEL BELTED RADIALS - (2) GR-78-15, Dunlop, w/w snow tires mounted on GM rims. Like new, $70/pr. Ext. 5385.

62 CHEVY - 6 cyl., buy complete car or parts; re-cond. radiator for '56 Chevy. Joe, Ext. 2556.

76 RABBIT - auto, sunroof, air, some body damage, $1,750. Ext. 3492.

69 VW SQ. BACK - body good, inside excel., '71 eng., new tires, runs excel., $1,050. Charlie, Ext. 3950 or 878-1540.

75 OLDS CUTLASS SUPREME - sport coupe, auto, 260 V8, stereo cassette, swivel front seat, powder blue, white int., must see, asking $2,800. Ext. 3381 or 286-1024.

70 FORD MAVERICK - auto, new paint, tires, etc., good mpg, excel. cond., avail. Feb. Ext. 7112 or 3017 eves.

CAMPER - Fifthwheel, Midas, 31 ft., less than 1,000 mi. Must sell. Asking $9,000. Ext. 7130 or 929-8323.

79 CHEVY PICKUP - 4-wheel drive, short bed, 350, 4-speed, dual tanks, Scottsdale package, rear sliding window, rust-proofed, economy rear. 10,000 mi - like new. $7,200. Ext. 7130 or 929-8323.

TIRES - 2 new, G78-14, glass-belted. Asking $90. Carol, 289-3917.

73 OLDSMOBILE - excel. running cond., AM/FM stereo 8 trk. tape., full pwr. Ext. 4835, 289-9811 after 6.

70 DODGE - Dart, for parts, glass, 4 doors, auto. trans., rear, truck lid. Ken, 289-8212.

Boats & Marine Supplies

MFG - '68 fiberglass, 15', new trailer, 28 hp, excel. cond. $650. Must sell, moving. Victor, Ext. 3357.

HYDRONIC HEATING SYSTEM CIRCULATORS - Taco, 1/8 hp, B&G. $30/ea. Frank, 878-8258, after 7 p.m.

Moving and Yard Sales

MOVING SALE - one day only, indoors, clothes, toys, household goods, etc. Saturday Feb. 6, 10 a.m.-4 p.m. 8 Gerard St., Bellport. 286-1688.

Miscellaneous

HO TRAIN SET - transformer, 20' track, buildings, $35; photo enlarger plus access., $50. Tom, Ext. 3128.

MEXICAN RED HEAD PARROT - w/cage, food, not trained. 1 yrs. Asking $150. Fran, 399-4822.

LARGE WOOD DESK - w/chair, $60. Judith, 698-3150.

HAIRSETTER - Clairol Kindness, deluxe 3-way, used once, in box. Pete, Ext. 4819.

REGENCY TUNEABLE RADIO - high band, 150 mhz-170 mhz, $20. Paul, Ext. 4665 or 727-4859.

GRAPEFRUIT - pink, $7 per 2/5 bushel box. Delivery Feb. 22. G. Price, Ext. 3336.

FIGURE ICE SKATES - sz. 3, excel cond. $8. Carmen, Ext. 4135.

STEREO - Sound Design, 8-track, turntable, receiver, 2 speakers, excel. cond., approx. 4 yrs. old. $80. 289-1439, after 4:30 p.m.

FREEZER - $200; b/w TV, needs repair, $25; shag rug, $40; girls bike, $45. Paul, Ext. 4156.

ELECTRONIC MEDICAL THERMOMETERS - brand new, $10. Charlie, Ext. 3935 or 325-0968.

HIGH RISER - w/spread, chest of drawers, both excel. cond. Sharon, Ext. 4464.

PINE DROP LEAF TABLE - w/4 chairs; 1920 vanity; queen size water bed w/heater, liner, & pedestal frame; new 55 gal. drum; auto cassette player, w/fm radio. 924-4685.

SANSUI AU217 II STEREO - integrated amplifier, 40 watt chan., 1 yr. old, flat black, must hear. Lists $250, asking $150. 286-9226, after 6 p.m.

REFRIGERATOR - small desktop model, $40; inverter, 12VDC to 115VAC, 200 watts, $30. Gene, Ext. 3519.

SNOW PLOW - 6' blade, hydraulic pump, motor, piston, good cond. $225. 289-0413.

ATARI VIDEO GAME - $100. Ext. 3671 or 744-8632, after 6 p.m.

SIBERIAN HUSKY PUPS - A.K.C., seven wks. old, blue eyes, shots. 399-2677.

MIDLAND C.B. RADIO - $65; 50' Coax, $20; 12 V converter, $10; Big Stick antenna, $30, or all for $100; 7 ft. cutting edge for snowplow, $30; highchair, $9. 727-1617.

HIGH CHAIR - natural wood, like new, $40; youth bed, wood, foam mattress, $35. Gail, Ext. 3338.

DINING SET - Drexel, table w/leaves, 4 chairs; china closet, pecan wood, $300. 929-4942, eves.

TWIN CASTRO CONVERTIBLES - turn into 2 single beds, Ext. 3392 or 475-8330.

SKIS - 185 cm Heads, Look-Nevada bindings, leather boots, sz. 9, poles, all good cond., great for beginner, $50; fox jacket, sz. 8-10, good. cond., very warm, $100. 744-1081, after 3 p.m.

QUEEN SIZE HEADBOARD - Drexzel Spindal, $50; hope chest, cedar lined, $25;
walnut dining rm table, 4 chairs, black naugahide seats, cane backs, leafs, pads. $75; Genie door opener, $50; stereo console, $30. 878-8933.

COLOR TV - 17", Sears, just been repaired, $125. Joe, Ext. 4661.

FREEZER - Gibson, huge, 30 cu. ft., excel. cond., frost free, $250. 289-5704, after 5 p.m.

BENCH DRILL PRESS - Variable high speed, " cap; new 5 ft. s/s counter top w/large s/s sink and faucet. 475-0831.

BRITANNICA - Great Books of the Western World, 54 vol., mint cond., $200. 281-3721, after 6 p.m.

O.S. 40 FSR ENGINE - for R/C model. Brand new in box, never used, $80. Steve, Ext. 4442.

KARASTAN RUG - 12x15 avo. green, pad incl., very good cond., $190. Ext. 3652 or 744-5866 eves.

WOODEN DESK - 5 drawer, 28"x54", $55. Ext. 4748.

TOY CHEST/BENCH - dark pine, $25. Ext. 3652 or 744-5866 eves.

WING CHAIR - black naugahyde, excel. cond., $85. Ext. 3652 or 744-5866 eves.

PICTURE TUBE - Magnavox, 25", brand new, incl. chassis for parts, $150. 281 1862.

WOODEN PLAYPEN - Playguard, $6; Security accordion gate, $3. 924-5495.

ELECTRONIC ORGAN - Conn electric-band, 12 voices, 5 rhythms, auto-chord, mini synthesizer, 5 octave range, $725. Roy, Ext. 4664 or 744-8779.

FIGURE SKATES - child's beginner, never worn, sz. 4, black, $5. Charlie, Ext. 4758.

WOMANS BOOTS - western, hardly used, sz. 6M, $15. Ray, Ext. 4479.

ATARI VIDEO GAME - precursor to computer, preprogrammed w/six games, paddles, TV hookup, $20. Don, Ext. 7611.

MODULAR SOFA - tufted brown suede, 4 corner & 4 armless sect., excel. cond., paid over $1,500, circular saw table, Craftsman deluxe, very good cond., new $80, now $60. Shu, Ext. 3499.

8 TRACK - w/two speakers. Joe, Ext. 2556

ZIG-ZAG SEWING MACHINE - Penneys mod. 6701, w/table, like new, $200; upright Grand Piano, Stutz & Bauer S/N 27890, mech. good, appear. fair, $150. Bailey, Ext. 3712.

HOT-TAR DRIVEWAY SPRAYER - 400 gal., tank trailer w/two cyl., air-cooled, Wisconsin eng., $550. R. Lutz, Ext. 7774.

BLANK CASSETTE TAPES - BASF Ferrite, CrO2, FeCr & metal. Ext. 2521 or 928-8379 eves.

FREEZER - Sears upright, excel. cond. Don, Ext. 2225.

GOLDEN RETRIEVER PUPS - AKC registered. 473-1175 after 5 p.m.

SUPER BINDINGS & POLES - K2's, 170cm Tyrolia 150, one pr., used once, $200; mens ski boots, Raichle, one pr., sz. 10, used once, $50. Ellie, Ext. 7328.

ICE SKATES - Boys and Girls, used, assorted sizes., reasonable. Lloyd, Ext. 4803 or 325-0389.

MOUTON LAMB JACKET - brown, fits sizes 12-16, $75. 475-0144, after 6 p.m.

DINING ROOM SET - contemporary 8 piece, cherry mahogany, table w/pads, 6 chairs, china closet. Asking $250; chandelier, modern, lucite and chrome, $35. 588 5489.

CIRCULAR SAW - 7-1/4"; antique bed frame, single; 8 trk. tape player w/pre-amp. 924-4685.

STANDARD HEATER - sm. Presto port. w/fan, like new, $20. 589-0643.

GOLDEN RETRIEVER PUPS - 8 wks. healthy, hips and eyes checked. Reasonable. 862-7131 after 7 p.m.

FURNITURE - couch, loveseat, cocktail table, stereo cabinet (no components). Make offer, will sell separately. Ext. 4121.

LIVING RM. FURN. - 80" emerald, green couch; 2 burnt orange chairs. Make offer. Paul, Ext. 2447 or 878-1486.

SEARS FREEZER - 17 cu. ft., mint cond., $200. Ext. 5061 or 289-1831.

KITCHEN TABLE & CHAIRS - Brown formica table & yellow/brown print chairs. Asking $40; 2 wood dark stained tressel benches. Asking $35. 281-0360.

OIL BURNER - 5 yrs. old, new transformer, excel. cond., $25. Ralph, Ext. 2368 or 928-6654.

ITALIAN RACING BICYCLE - fully equipped. Andy, 286-8698.

DINNERWARE - Mikasa, svc. for 8, plus completer set, blue/green pattern, excel., $25. Ext. 5274 or 281-2767.

FISH TANK - 20 gal. plus stand, must see, all set up, $50 firm. Bob, 289-3917.

GIRLS ICE SKATES - sz. 1 (dbl. bladed); sz. 2. Liz, Ext. 2082.

FOR YOUR VALENTINE - hand made chocolates, milk, white, dark. Deliver to office. Roseann 567-5619.

G.E. WASHING MACHINE - excel. cond., lightly used, orig. $385 now $200 or best offer. 288-1151 eves.

CAMERA - 35mm SLR Minolta SRT 102; 50mm 1:17 lens & filter. Shutter 0-1000; Vivitar flash. Asking $175. Ext. 3284 at noon or 281-0360 after 6 p.m.

MICROSCOPE - Leitz, old professional model, dual nosepiece, coarse/fine focusing, adjustable substage condenser, $135. Telescope - reflector 6", eyepieces, stand, case, Edm. Scientific., $140. Shortwave Receiver - BC 342, 5 bands, crystal filter, 1.6-18 Mhz, 110 v. AC, old but works well, $85. Snowblower - 4-1/2 h.p., 2-stage, very good, $175. 588-5228.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

For Sale

MASTIC BEACH - 4 bdrm. cape, d/r, l/r w/Franklin, 8% Farmers mort., 160x100 prop., gas hot water & cooking, $1,100 taxes, walk to stores & beach, $28,000. 281-0360.

WADING RIVER - 3 bdrm, older brick home, adj. to Wildwood Park & priv. beach, beautifully renovated, hw floors, pvt. 1 bdrm apt. on sep. floor w/pvt. ent., ($250-300/mo.), landscaped, wooded lot, 80'x100', quiet treed street, nice neighborhood, low taxes, Riverhead schools, $55,500. 929-4180 before 10 p.m.

MILLER PLACE - Contemporary ranch house, 4 bdrms, eik, l/r, den, fenced yard, excel. cond. Rustic acres, $78,500. 331-3724.

PATCHOGUE - 2 bdrm ranch, OHW heat, wood stove, full bsmt., city water, alum. siding, chain link fence. Assume 8% mtg, $28,000. 289-8212.

For Rent

PORT JEFF STA - cozy 2 rm apt., 1/r, bdrm, kitchenette, patio. Private ent., $275/mo. + % util. (1 mo. security). 331-2907.

ROCKY POINT - furn. beach cottage, 4 rms, 2 blocks from Sound. Early March - mid June, $325/mo. plus util. Call 928-1339.

LAKE PANAMOKA - 2 bdrms w/carpet, freshly painted, Franklin stove in l/r., eik, w/washer & dryer, porch & deck. 929-4996 after 5 p.m.

ROCKY POINT - 3 rm. apt., 8 mi. from lab., ideal for bus. couple, priv. ent., util. incl., w/w carpet. 744-7083.

ROCKY POINT - Log cabin, one bdrm, fireplace, leaving at end of Feb., $240. Ext. 3084 or 924-0121.

SETAUKET - 4 bdrm, 2 baths, l/r, d/r, f/r, basement, colonial, 2 car garage, walk to SUNY, avail. March 15, 1982, $750/mo., plus util. Ext. 2611 or 751 3702.

Car Pools

BABYLON/WEST ISLIP - driver needed for 8:30 to 5:00 car pool. Ext. 2493.

PATCHOGUE VIA E. PATCHOGUE - on time, opening for paying rider. Alyce, Ext. 2902.

Wanted

EXERCISE BIKE - Compact, to fit in small ar- Ext. 5053.

VOLVO - used, in good cond. Ext. 2374 or 473-0586.

TO ADOPT - Siberian Husky, 9 mos. to 2 yrs., reasonably well behaved. 924-4685, eves.

PINE CHEST OF DRAWERS - pine hutch top. 289-3114.

ICE SKATES - assorted adult sizes. Gary, Ext. 2066 or 924-7480.

EXERCISE BIKE - w/tension knob. Susan, Ext. 4267.

PIANO TEACHER - Moriches area. 878-8008, after 6 p.m.

AMBITIOUS PEOPLE - $200-$300/mo., 6-8 hrs/wk. 698-5861, after 7 p.m.

PERSONS INTERESTED - in skiing weekend of Feb. 26th or 1 day Feb. 6th. For info. call Bea, Ext. 3571.

WEIGHTS - old or new, iron preferred, top dollar paid. Call 399-4213.

TRAINS - Lionel, American Flyer, access., any cond. brings good price. Carole, Ext. 3362 or 924-4097 eves.

ROOMMATE - to share large 2 fireplace house on Stony Brook waterfront. Pete or Carol, Ext. 3043 or 751-5874.

VW BODY - '73 or '74 412 station wagon, in reasonable cond. Murdock, Ext. 2386.

WEIGHT BENCH - w/leg lifts; exercise bike. Ken, Ext. 3574 or 472-3329 after 6 p.m.

TRAINS - Lionel, any "0" gauge or "027" gauge cars, track and equip. Frank, Ext. 3120.

Services

Services are listed as a courtesy to BNL ployees. They are neither screened nor recom mended by the ***Bulletin.***

CHILD CARE - mother will care for child in my home, playmates, lunches provided. Brookhaven, Bellport. Weekdays, 286-0834.

FIRESIDE CHIMNEY SWEEPS - fireplaces, wood coal and oil flues, dustless removal. $10 off thru 2/28/82. Bill, 584-6425.

TAXES PREPARED - prompt professional service, at your home or my office. Bill, 821-9081.

BABYSITTING - 5 min. from lab. Kathy, 281-5605.

TAXES - 1981 income prepared by professional accountant, very reasonable rate, p.m. and weekend. Bob, 286-5829.

FIREWOOD - split, seasoned oak, 4'x16'x18", delivered, $110. Call 924-4284 or 924-3919.

TYPING SERVICES - 744-4047.

CARPETS INSTALLED - quick dependable service, repaired, free estimates. Jim, 821-0187, after 5 p.m.

BURGLAR ALARM - shop at home service, equipment only, or installed. Free survey. Custom system. Steve, 399-3806.

AUTOMOTIVE REPAIR - & tune-ups. Glenn, 281-7873.

EDITING - re-writing, writing, exper., reasonable fees. all 929-3150.

LIMO SERVICE - luxury, chauffered for proms, weddings, airport, all occasions. Roy, Ext. 4664 or 744-8779.

CHILD CARE - mature woman will care for your child in her home, 5 min., from lab. Joan, 821-19

HOUSE PAINTING - int./ext., professional quality materials, insured. Bob, 289 7657, after 6 p.m.

CHILD CARE - my home, must be toilet trained, 10 min. from lab. Judy, 929-8331.

TAXES PREPARED - by tax consultant, your home or mine, reasonable. John, 732-2472.

SM. APPLIANCE REPAIRS - vacuums, heaters, sew-mach., typewriters, etc. No. Patch. 654-3900.

HOUSE CLEANING - and/or babysitting. Hours flexible, experienced, can provide refs. Cathy, 281-0360.

SHEET ROCKING & SPACKLING - Kevin and Tom. Free estimates. 234-4747.

PROFESSIONAL INCOME TAX SERVICE - by experienced preparer, year-round service. Jack, Ext. 7942 or 864-2236.

HOME IMPROVEMENTS - Carpentry, roofing, masonry, painting, complete, int./ext. Free estimates. 281-0360.

PLUMBING & HEATING - Lab discount. John, 654-8189.

Classified Ad Policy Deadline is 4:30 p.m. Friday for publication Friday of the next week.