

Nomadic crew runs vibrating truck



Bill Kelley holding cable with geophone

If you've driven east from Heppner toward Nye Jct. lately, you may have wondered what all the "bump-er to bumper" trucks were doing. They're putting a large pad from underneath the truck down onto the ground, then raising themselves off the ground so that all 36,000 pounds of truck rests on the pad. Then a hydraulic cylinder on the truck sends vibrations into the ground for a five length of time. When the time is up, the operator pushes the level to raise the pad, set the truck back on its tires and drives ahead a certain distance and repeats the process.

Bill Kelley, field manager, for the 35 member Geophysical Service Inc. crew currently working from an office set up in the former LeBush Shoppe on Main Street in Heppner, explains that the vibrations from the trucks penetrate the earth's surface to a depth of about two miles. Cables which are strung along the ground have receivers anchored to the ground at prescribed distances. When energy is pumped into the earth from the vibrator trucks, the receivers "hear" the vibrations and transmit the waves along the cables to a recording truck which sends a

tone to the vibrator trucks which starts and stops the vibrations at given times.

The recording truck with four air conditioners on top to keep the equipment cool-picks up the data from the cables and records it in a computer, on tapes and on a graph which provides a time lapse sketch of the speed the waves have traveled through the ground.

Operating on the principal that energy waves travel at different speeds in dirt and rock, the resulting

graph and information provides the Denver Colorado based oil company who contracted the work along the 22 mile seismic line with information that will help them determine if any structures exist beneath the earth's surface which could contain mineral deposits.

The Morrow County Planning Commission approved a conditional use permit which allowed GSI to drill 200 ft. holes four inches in diameter at one mile intervals along a seismic line 22 miles long and load

the holes with one pound charges of dynamite at pre-determined depths. Basically this is to confirm the velocity of the earth in given areas to correlate with information gained from the vibrator trucks Kelley explains. It is accomplished by a contract driller and one GSI crew member who puts in the dynamite charge and sets it off.

Complicated as this all sounds, many of the crew members receive training for their jobs directly from GSI. Gail Waterman, head of the survey crew which sets out the markers for the receivers and marks culverts, etc. so that the vibrator trucks do not send vibrations directly into something which could easily be damaged, has been with GSI for almost six years. Most of her training has been in the field although she does have a Master of Arts and Bachelor of Fine Arts degree in art education, which she explains that has little to do with her work on the survey crew.

Unlike many of the crew members, Waterman is single and travels with a 34 ft. triple axle trailer which she calls "home" wherever the crew is working. She does claim an attachment to Lander, Wyoming, however. Other crew members are



Line-up of "vibe" trucks east of Heppner

Bowling News

Spartimers December 4

	Won - Lost
Petersons	34 - 22
M.C.G.G.	31 - 25
Coast To Coast	30 - 26
Len's Processing	28 - 28
Central Market	28 - 28
Gardners	27 - 29
Sears	25 - 31
Les Schwab	21 - 35
Splits converted: Inetia Cantin 6-7 and Chris Limanen 5-10.	
High game: Billie Doherty-202	
High series: Inetia Cantin-545.	

Thursday Night Ladies December 6

	Won - Lost
B.P.O.E. No. 358	41 - 11
Depot Nursery	33 - 19
J & J Ceramics	26 - 26
Kinzua Corp	25 - 27
B & C Repair	24 - 28
The Country Rose	20 - 32
Ray Boyce Ins.	17 - 37
Splits converted: Marilyn Childers 5-10 and Janice Paustian 5-10.	
High game: Marilyn Childers-219.	
High series: Yvonne Lovgren-552.	

Koffee Kup Keglers December 6

	Won - Lost
M.C.G.G. No. 2	37 - 19
The Dregs	36 - 20
The Pytts	31 1/2 - 24 1/2
The Hi Ho's	29 - 27
No Pin Hitters	23 1/2 - 32 1/2
The Gutter Dusters	22 1/2 - 33 1/2
The Hopefuls	22 1/2 - 33 1/2
The 3-Holers	22 - 34
Splits converted: Iris Campbell 5-10, Josie Kindsfater 3-10, and Hilda Yocom 4-6-10 and 5-10.	
High game: Millie Hanna-208.	
High series: Linda Schultz-508.	
High team game: Hi Ho's-495.	
High team series: Hi Ho's-1,421.	

Dime A Dozen December 9

	Won - Lost
No. Eight	39 - 17
No. Four	29 1/2 - 26 1/2
No. Two	28 1/2 - 27 1/2
No. Five	28 1/2 - 27 1/2
No. Six	28 - 28
No. Seven	27 - 29
No. One	23 - 33
No. Three	20 1/2 - 35 1/2
Splits converted: Lucille Massey 5-7, Alvina Padberg 5-10, Larry Heath 5-10.	
High game: Alvina Padberg-201 and Gene Doherty-220.	
High series: Billie Doherty-535 and Bert Corbin-548.	
High team game: No. Eight-854.	
High team series: No. Eight-2,277.	

4-H Clubs

Souper Seamers

By ALECIA TARNASKY
The third meeting of the Souper Seamers 4-H clothing club came to order as Alecia Tarnasky, Giselle Schoonover and Madara Rill started sewing and cutting out their projects.

Kim Wright and Amy Greenup went down to Case Furniture to find a project for Amy. She picked out a heart pillow for her first project of the year. Giselle is making teddy bears.

The next meeting will be Dec. 10.

Two-Trackers

By AMY GREENUP
The Two-Trackers 4-H Club and the Wranglers Riding Club had their Christmas Party, Sunday Dec. 9 at the Morrow County Fair Pavilion Annex.

After a potluck dinner, Santa arrived and handed out candy canes and gifts to the kids who attended. A short business meeting was held. Kathleen Brazell chaired the meeting in the absence of President Cindy Davis. Amy Greenup was elected club reporter. The next meeting will be Monday, Dec. 17 in the 4-H Dormitory at the fairgrounds. The business will be to select topics for the January, February and March meetings.

Central Market



CORONET, 4 ROLL 2 PLY
BATH TISSUE 99¢
CORONET
TOWELS 2 PLY 29 SQ. FT. 59¢
CORONET WHITE
FACIAL TISSUE 150 CT. 59¢

CLIP & SAVE

VALUABLE COUPON

WHIPPED TOPPING
WESTERN FAMILY
REG. OR CREAM
8-OZ. **2/98¢**
LIMIT 2

GOOD ONLY AT FAMILY GROCERS. CASH VALUE 1/20¢
EFFECTIVE DEC. 12 THRU DEC. 18, 1984

CLIP & SAVE

VALUABLE COUPON

CRANBERRY SAUCE
WESTERN FAMILY
1 1/2-OZ. **39¢**
LIMIT 2

GOOD ONLY AT FAMILY GROCERS. CASH VALUE 1/20¢
EFFECTIVE DEC. 12 THRU DEC. 18, 1984

CLIP & SAVE

VALUABLE COUPON

SNOW WHITE MUSHROOMS
8-OZ. CUP **79¢**

GOOD ONLY AT FAMILY GROCERS. CASH VALUE 1/20¢
EFFECTIVE DEC. 12 THRU DEC. 18, 1984

CLIP & SAVE



Santa

PRICES EFFECTIVE

BIG MEAT VALUES

PORK SHOULDER ROAST

BONELESS



\$1.49
LB.

BEEF RIB STEAK

USDA CHOICE
5 INCH CUT



\$2.89
LB.

LENNON BONE-IN WHOLE OR SHANK HALF

SMOKED HAM

\$1.49
LB.

NORTHWEST FAVORITE FROZEN

HALIBUT STEAK LB. **\$2.89**

BAR-S 95% LEAN, WATER ADDED
HALF HAM LB. **\$3.89**

HYGRADE MEAT OR BEEF
BALL PARK FRANKS LB. **\$1.89**

BAR-S REGULAR OR THICK

SLICED BACON

ARMOUR STAR BONELESS
CANNED HAM 3

BUDDIG ALL VAR., 2.5-OZ.
CHIPPED MEATS

BUDGET SAVING VALUES

SPAGHETTI SAUCE
RAGU, 15.5-OZ.
TRADITIONAL, HOMESTYLE, GARDEN **99¢**

CRISCO
SHORTENING 3 LB. **\$2.49**

CARNATION, 12-OZ.
EVAPORATED MILK **55¢**

WESTERN FAM. ELBOW MAC. OR
SPAGHETTI 32-OZ. **\$1.29**

HILLS BROS. 3 LB.
GROUND COFFEE **\$6.99**

HILLS BROS. 26-OZ.
DECAF. COFFEE **\$6.89**

DIANE'S, 16-OZ.
TORTILLA CHIPS **\$1.39**

SCHILLING GR.
BLACK PEPPER 4-OZ. ... **\$1.09**

NABISCO CHEESE NIPS
CRACKERS 14.5-OZ. **\$1.19**

DAIRY - DELI

CHEESE LOAF

WESTERN FAMILY
MEDIUM CHEDDAR



2 LBS. **\$3.89**

COUNTRY CROCK

SHEDD'S SPREAD 1.5 LB. **97¢**

COTTAGE CHEESE



DARIGOLD
LARGE, SMALL, TRIM
16-OZ. **73¢**

BEVERAGE SPECIALS WINES

ROSE, FRENCH COLOMBARD,
E&J GALLO CHENIN BLANC 1.5-LT **\$3.79**

RHINE, CHABLIS, PINK CHABLIS,
CARLO ROSSI VIN ROSE, BURGANDY 1.5-LT **\$2.69**