NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM, OREGON 97310 within 30 days from the date of well completion.

RECEIVED MAY 22 1972 STATE ENGINEER SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON
(Please type or print) (Do not write above this line)

NC DESC 5577

State Well No. 18/12-5 aC

State Permit No. .....

(1) OWNER:
Name CITY OF BEND
Address P.O. Box 431 BEND, ORE.

(2) TYPE OF WORK (check):
New Well [X] Deepening [ ] Reconditioning [ ] Abandon [ ]
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:
Rotary [ ] Driven [ ]
Cable [X] Jetted [ ]
Dug [ ] Bored [ ]

(4) PROPOSED USE (check):
Domestic [ ] Industrial [ ] Municipal [X]
Irrigation [ ] Test Well [ ] Other [ ]

(5) CASING INSTALLED:
Threaded [ ] Welded [X]
24 " Diam. from 0 ft. to 43 ft. Gage .375
16 " Diam. from 0 ft. to 637 ft. Gage .312
" Diam. from ..... ft. to ..... ft. Gage .....

(6) PERFORATIONS:
Perforated? [ ] Yes [X] No.
Type of perforator used .....
Size of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

(7) SCREENS:
Well screen installed? [ ] Yes [X] No
Manufacturer's Name .....
Type ..... Model No. .....
Diam. ..... Slot size ..... Set from ..... ft. to ..... ft.
Diam. ..... Slot size ..... Set from ..... ft. to ..... ft.

(8) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? [X] Yes [ ] No If yes, by whom? STRASSER
Yield: 1837 gal./min. with 4 ft. drawdown after 24 hrs.
" " " "
" " " "
Bailer test ..... gal./min. with ..... ft. drawdown after ..... hrs.
Artesian flow ..... g.p.m.
Temperature of water 50 Depth artesian flow encountered ..... ft.

(9) CONSTRUCTION:
Well seal—Material used SEE ATTACHED
Well sealed from land surface to LETTER ft.
Diameter of well bore to bottom of seal 24 AND 20
Diameter of well bore below seal 20-16 AND 12
Number of sacks of cement used in well seal ..... sacks
Number of sacks of bentonite used in well seal 74 sacks
Brand name of bentonite AND 8 YDS CONCRETE
Number of pounds of bentonite per 100 gallons of water ..... lbs./100 gals.
Was a drive shoe used? [X] Yes [ ] No Plugs ..... Size: location ..... ft.
Did any strata contain unusable water? [X] Yes [ ] No
Type of water? SURFACE depth of strata 44 FT.
Method of sealing strata off CEMENT AND CASING
Was well gravel packed? [ ] Yes [X] No Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

(10) LOCATION OF WELL:
County DESCHUTES Driller's well number 5401
SW ¼ NE ¼ Section 5 T. 18S R. 12E W.M.
Bearing and distance from section or subdivision corner .....

(11) WATER LEVEL: Completed well.
Depth at which water was first found 119 ft.
Static level 564 ft. below land surface. Date 4/4/72
Artesian pressure ..... lbs. per square inch. Date .....

(12) WELL LOG:
Diameter of well below casing 16 AND 12
Depth drilled 900 ft. Depth of completed well 900 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. *Report each change in position of Static Water Level and indicate principal water-bearing strata.*

MATERIAL	From	To	SWL
SEE ATTACHED SHEET			

Work started NOV. 1, 1971 Completed APR 24 1972
Date well drilling machine moved off of well APR 27 1972

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] Glenn Rasmussen (Drilling Machine Operator) Date 5/11, 1972
Drilling Machine Operator's License No. 54

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name R.J. STRASSER DRILLING CO (Person, firm or corporation) (Type or print)
Address 8110 SE SUNSET LANE PORTLAND ORE
[Signed] Robert L. Strasser (Water Well Contractor)
Contractor's License No. 10 Date MAY 18, 1972

(USE ADDITIONAL SHEETS IF NECESSARY)

SP*45656-119

71-2355

R. J. Strasser Drilling Co.

8110 S. E. Sunset Lane
Portland, Oregon 97206

May 6, 1972

Log of City of Bend well

Fill	0 - 4
sand, gravel, and boulders	4 - 9
tan ash	9 - 14
sand, gravel and clay	14 - 23
sand, ash and gravel	23 - 44
black basalt	44 - 119
red and black basalt	119 - 203
red basalt, streaks of clay	203 - 224
light brown basalt	224 - 225
medium hard black basalt	225 - 271
hard black basalt	271 - 292
medium hard red and black basalt	292 - 322
dark grey basalt	322 - 341
red and black fractured basalt	341 - 382
black basalt and brown clay	382 - 385
red, black and yellow rock	385 - 397
black basalt	397 - 403
black, brown and red basalt; clay seams	403 - 432
black, brown and red basalt, tan clay	432 - 438
porous black basalt	438 - 443
black basalt	443 - 454
brown clay with broken basalt	454 - 487
yellow clay and black basalt	487 - 495
tan clay and brown and black basalt	495 - 498
black and brown basalt with brown clay	498 - 539
black basalt	539 - 566
slightly porous black basalt	566 - 595
medium hard black basalt	595 - 602
slightly porous black basalt	602 - 626
medium hard black basalt	626 - 670
porous black basalt	670 - 700
porous red and black basalt	700 - 721
hard black basalt	721 - 724
slightly porous black basalt	724 - 741
brown, red, tan and black basalt	741 - 744
brown and black basalt	744 - 777
soft porous brown basalt	777 - 783
brown and black basalt	783 - 792
porous black basalt	792 - 838
black basalt	838 - 889
black basalt with brown clay	889 - 900

Area Code 503
771-2355

R. J. Strasser Drilling Co.

8110 S. E. Sunset Lane
Portland, Oregon 97206

April 29, 1972

Mr. William Mc Call, Geologist
Oregon State Engineer Office
Salem, Oregon 97310

OK
Bnd

Dear Mr. Mc Call:

Pursuant to our telephone conversation of April 14, 1972, we are writing you this letter to record the sealing program you have accepted and we have performed on the municipal well we have recently completed for the City of Bend, Oregon. We shall submit a regular state well report, however there is no space adequate in the regular form to record this sealing proceedure.

1. The 16" permanent casing is sealed in the 20" diameter hole at 637 feet with 25 bags of cement.

2. Above the seal at the bottom of the 16" pipe we backfilled the annulus between the twenty inch hole and the sixteen inch pipe with rock cuttings from the well and crushed rock to a depth of 262 feet from the land surface. There we pumped in another 25 bags of cement grout.

3. The 235 feet of 20" O.D. pipe that was used in drilling the well was removed from the well and the annulus between the open 24" hole and the 16" pipe was backfilled with rock cuttings and crushed rock to a depth of 112 feet from the surface at which depth we pumped in another 25 bags of cement grout.

4. The 24" O.D. pipe was left in the well. The hole was backfilled with rock cuttings and crushed rock to 50', a depth five feet deeper than the bottom of the 24" pipe. From this depth we backfilled the well to the surface with 8 cu. yd. of 3½ sack/yard concrete, filling the annulus between the 24" and 16" casing and the voids outside the 24" pipe.

It is our feeling that this well is more than adequately sealed

and are confident it should meet the sealing requirements of any of the numerous governmental agencies who have so recently become involved in ground water protection.

Respecfully submitted,

Robert L. Strasser

Robert L. Strasser, partner
R. J. STRASSER DRILLING CO.