



# Central Michigan District Health Department

*People Caring For People*

Robert W. Graham, D.O., MPH  
Medical Director

Mary L. Kushlon, MSA  
Health Officer

November 17, 2000

**Malcolm Pirrie Engineers**  
1500 Abbott Road  
East Lansing, MI 48823

Attn: Shane McDonald  
Re: Permit to Install Water Supply Facilities **Wssn: 20166-67**

Dear Mr. McDonald:

Enclosed is the approved well permit application for construction of a new Type II-A well for **Great Spring Waters of America** located at **100th Avenue, Osceola MI**. Please note the conditions of this permit are as follows:

**-ISOLATION**

**Standard -**

The well is to be located a minimum of 200' feet from all potential sources of contamination such as: septic fields, septic tanks, dry wells, buried sewer lines, surface water (lakes, streams, etc.), storm sewer lines, catch basins or animal pastures.

**Major -**

The well is to be located a minimum of 2000' from all major source of contamination. Such sources include, but are not limited to chemical storage, fuel storage tanks, brine or injection wells, contamination plumes and land application of sewage or sewage lagoons.

**-DEVIATIONS**

None

**-GROUTING**

The well must be grouted using neat cement and methods approved by the department. The grouting addendum enclosed with the permit addresses proper grouting requirements. The health department will need to be notified **24 hours BEFORE grouting takes place.**

in Office  
12 E. Preston Ave.  
Plymouth, MI 48858  
Administration 517-773-4921

Branch Offices:  
**Genesee County**  
27 Deep River Rd.  
Danzig, MI 48858  
7-866-6541  
TX 517-846-0431

**Isabella County**  
15 W. Main  
D. Box 237  
Genoa, MI 48855  
17-539-6131  
AX 517-539-4439

**Livingston County**  
23 N. Bowery  
Livonia, MI 48024  
17-426-9431  
AX 517-426-6852

**Isabella County**  
012 E. Preston  
St. Pleasant, MI 48858  
17-773-3921  
AX 517-773-4319

**Osceola County**  
15 N. J  
Woodville, MI 48897  
21-658  
FAX 231-832-1020

**Marion Human Services**  
102 E. Main Street  
P.O. Box 39  
Marion, MI 49855  
231-743-8677  
FAX 231-743-2140

**Rosecommon County**  
1015 Shan Drive  
P.O. Box 739  
Plymouth, MI 48858  
517-386-0186  
FAX 517-386-8921

**-CAPACITY**

The well must have a minimum capacity of approximately 20,000 gallons a day.

**-PLASTIC PIPE USE**

If plastic pipe is used between the well and the pressure tank or buildings, it must be National Sanitation Foundation approved for potable water (NSF-pw) and must have a minimum 160 psi rating or approved by American Waterworks Association.

**-WELL ABANDONMENT**

None

**-WELL RECORD**

The well drilling contractor is to submit a copy of the well record (well log) upon completion of the well. The copy should be sent directly to Central Michigan District Health Department, Isabella County Branch Office, for use at the final inspection.

**-DISINFECTION AND SAMPLING**

We have found that the most effective way to initially disinfect new wells is to use the displacement method. Place heavily chlorinated water into the well to displace at least two times the casing volume; pump into the distribution system; allow 24 hours contact time; and then pump to waste.

A useable sample tap must be located near the pressure tank or as close to the well as possible. The sample tap should have a 1/4 inch, downward turned, unthreaded outlet and be operated by a ball valve or a good quality gate valve.

After disinfection and pumping to waste, the health department must be contacted for final inspection. The collection of the first bacteriologic sample must be conducted by the health department. A MINIMUM OF **TWO CONSECUTIVE ACCEPTABLE BACTERIOLOGICAL SAMPLES** (collected at least 8 hours apart, with no chlorine residual) and **one** acceptable Nitrate/Nitrite sample **MUST BE OBTAINED PRIOR TO USE OF THE WELL BY THE PUBLIC.** If coliform bacteria are detected, repeat disinfection and sampling are required. Phase II-V samples are also required before finalizing the well and are listed below:

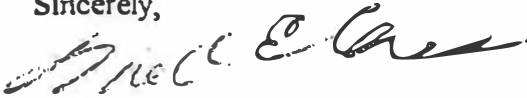
<u>Analyte</u>	<u>Unit Number</u> (if using State lab)	<u>Test Code</u> (if using State lab)
General Metals	36ME	CMET2
Cyanide	36CN	CCN
VOC (volatile organic compounds)	36VO	CXVO
SOC (synthetic organic chem)	36NV	CXPT
SOC (synthetic organic chem)	36NV	CXHB
SOC (synthetic organic chem)	36LP	CXLP

Additional stipulations may be required by Rich Overmyer R.S., from the Department of Environmental Quality.

Also enclosed, you will find the Nontransient Noncommunity Water Supply Capacity Development Application. The application will need to be filled out and mailed back to our Mt. Pleasant office before the well can be finalized.

If there are any questions regarding what is required, or if changes to the permit or procedures are proposed please contact Mike Kowaleski at the Isabella County Branch Office at 517-773-5921 ext. 158.

Sincerely,



Mike Kowaleski, R.S.  
Environmental Health Division  
Type II Program Coordinator

MK/sw  
enc.

cc: Rodney Allen, Natural Resource Mgr Midwest  
Perrier Group of America, 1119 S. Third St., St. Charles, IL. 60174  
Rich Overmyer, RS, Chief Noncommunity Unit, DEQ  
Cynthia Weaver, DEQ, DWRPD