ELKHART COUNTY

GROUND WATER PROTECTION ORDINANCE

May 1, 1999

WHEREAS, Indiana Code Sections 36-1-3-1 et seq. permit any county in the State of Indiana to exercise any power or perform any function necessary to the public interest in the context of its county or internal affairs, which is not prohibited by the Constitution of the United States or of the State of Indiana, or denied or preempted by any other law, or is not expressly granted by any other law to another governmental entity;

WHEREAS, the Board of Commissioners of the County of Elkhart, Indiana and the Elkhart County Board of Health find that it is in the public interest of Elkhart County to re-establish, reconfirm, and continue a ground water protection program;

WHEREAS, it is desired that the ground water of Elkhart County be reasonably protected from the improper storage and discharge of toxic or hazardous substances;

WHEREAS, the Elkhart County Board of Health is directed to enforce and observe all state laws and legally promulgated regulations pertaining to the preservation of health and is authorized to adopt such rules and regulations as may be deemed necessary or desirable to protect, promote, or improve public health by Indiana Code Sections 16-20-1 et seq.,

WHEREAS, the Board of Commissioners of the County of Elkhart, Indiana and the Elkhart County Board of Health desire to mutually administer and enforce the ground water protection program; and

WHEREAS, pursuant to the authority vested by the Indiana Code Sections 36-1-3-1 et seq., the Board of Commissioners of the County of Elkhart, Indiana desire to re-establish, reconfirm, and continue the Elkhart County Ground Water Protection Program subject to the provisions hereinafter stated;

NOW, THEREFORE, be it ordained by the Board of Commissioners of the County of Elkhart, Indiana as follows:

Section 1. Title.

This Elkhart County Ordinance may be referred to as the "Elkhart County Ground Water Protection Ordinance."

Section 2. Purpose.

It is the purpose of this Ordinance to enhance and preserve the public health, safety, and welfare of persons and property in Elkhart County by protecting the ground water of Elkhart County from degradation resulting from the spills of toxic or hazardous substances.

Section 3. Definitions.

A. The term "above ground storage tank" means any non-portable container, excluding all pipes connected thereto, which is used to store an accumulation of toxic or hazardous substances and in which more than ninety percent (90%) of the volume of the storage container is at or above the final ground elevation.

B. The term "agricultural" means of or pertaining to real property used principally for the production of food chain crops and livestock on a farm. The term "agricultural" does not include the sale or distribution of toxic or hazardous substances.

C. The term "aquatic life" means those plants and macroinvertebrates that are dependent upon an aquatic environment.

D. The term "Board of Health" means the Elkhart County Board of Health.

E. The term "CERCLA" means the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended.

F. The term "commercial or industrial" means of or pertaining to real property used principally for purposes of retail or wholesale business, commerce, trade, manufacture, or production or to serve and facilitate the operation of retail or wholesale business, commerce, trade, manufacture, or production.

G. The term "Commissioners" means the Board of Commissioners of the County of Elkhart, Indiana.

H. The term "contain" means to take such immediate action as necessary to dam, block, restrain, or otherwise act to most effectively prevent a spill from entering waters of the state or minimize damage to the waters of the state from a spill.

I. The term "County" shall mean the County of Elkhart in the State of Indiana.

J. The term "damage" means the actual or imminent alteration of the waters of the state so as to render the waters harmful, detrimental, or injurious to:

1. public health, safety, or welfare;
2. domestic, commercial, industrial, agricultural, or recreational uses; or
3. animals or aquatic life.

K. The term "facility" means all contiguous land and related structures, appurtenances, and improvements on land with the same operator. A facility may consist of multiple operations including retail or wholesale business, commerce, trade, manufacturing, production, treatment, storage, or disposal units, landfills, surface impoundment's, or combinations of them. For these purposes, contiguous land shall include land separated by a public right-of-way so long as such land would otherwise be contiguous.

L. The term "Health Department" shall mean the Environmental Health Division of the Elkhart County Health Department.

M. The term "inside" means within a structure totally enclosed on all sides and with a ceiling or roof and a floor of an impervious surface.

N. The term "operator" shall mean the person responsible for the overall operation of a facility.

O. The term "Ordinance" means this Elkhart County Ground Water Protection Ordinance.

P. The term "outside" means any location that is not inside.

Q. The term "owner" shall mean the person who owns a facility or part of a facility.

R. The term "person" shall include individuals, firms, corporations, associations, partnerships, consortiums, Joint ventures, limited liability companies, and any other legal entity. A Corporation and its subsidiaries shall be considered one person.

S. The term "process tank" means a vessel or other container used for the mixing or batching of chemicals, feeds, wastewater, or other components, or for the preparation of one (1) or more components, leading to the production of a desired product. The term includes all attached piping and other fixtures necessary for the intended operation of the vessel or container.

T. The term "process waste water" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.

U. The term "public wellhead protection area" means the surface and subsurface area delineated by fixed radius, hydrogeological mapping, analytical, semianalytical, or numerical flow/solute transport methods which contributes water to a community public water supply system production well or wellfield and through which contaminants are likely to move through and reach the well in a specified period or as further defined in Rule 327 IAC 8-4.1 et seq., as amended.

V. The term "RCRA" means the Resource Conservation and Recovery Act of 1976, as amended.

W. The term "reportable quantity" means the amount of a hazardous substance or extremely hazardous substance that is required to be reported under federal law at 42 USC 9602 (a) and (b) and 42 USC 9603 (a) et. seq. (40 CFR 302.4 or 40 CFR 355 Appendix A), as amended.

X. The term "residential" means of or pertaining to real property used principally for a residence.

Y. The term "secondary containment" means a containment system that is designed and operated in accordance with the rules and regulations for such adopted under this Ordinance.

Z. The term "spill" means any unintentional or intentional discharging, leaking, pumping, pouring, emitting, emptying, releasing, injecting, escaping, leaching, dumping, or disposing of a toxic or hazardous substance into or upon the soil, surface water, or ground water of Elkhart County.

The term "spill," as used and applied in this Ordinance, does not include the following:

1. proper disposal, in accordance with all legal requirements and in accordance with the requirements of RCRA and the regulations thereunder, of hazardous wastes in a facility that has received and maintained all necessary legal approvals for that purpose;

2. proper disposal, in accordance with all legal requirements, of any substance including special wastes, as provided by 329 IAC 2 et seq. of the Indiana Administrative Code, as amended, in a solid waste disposal facility that has received and maintained all necessary legal approvals for that purpose;

3. proper disposal of any substance in compliance with the terms and provisions of a valid municipal, state, or federal permit;

4. proper disposal, in accordance with all legal requirements, of any substance to a sanitary sewer system that has received and maintained all necessary legal approvals for that purpose;

5. proper application of fertilizers and pesticides in accordance with label requirements and in accordance with the guidelines of the Indiana State Chemist's Office;

6. proper application of road salts, deicing, or dust control materials for the purposes of snow, ice, or dust control;

7. proper disposal, in accordance with all legal requirements, of "sanitary sewage" to subsurface sewage disposal systems as defined and permitted by Rule 410 IAC 6-8.1 et seq. and by Rule 410 IAC 6-10 et seq. of the Indiana Administrative Code, as amended;

8. releases to impermeable surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil or waters of the state; or

9. releases of less than one pound or one pint.

AA. The term "spill response" for purposes of this rule means the following:

1. The spill is contained;
2. Free material is removed or neutralized; and
3. Action is taken to minimize further contamination to soils and waters of the state within Elkhart County.

BB. The term "spill report" means a written report that includes the following information about a spill to the extent that the information is known at the time of the report:

1. The name, address, and telephone number of the person submitting the spill report.
2. The names, address, and telephone number of a contact person, if different from clause (1).
3. The location of the spill.
4. The time of the spill.
5. The identification of the substance spilled.
6. The approximate quantity of the substance that has been or may further be spilled.
7. The duration of the spill.
8. The source of the spill.
9. Name and location of any waters damaged.
10. The identity of any response organization that is or has responded to the spill.
11. What measures have been or will be undertaken to perform a spill response.
12. The amount of spilled materials recovered.
13. Any other information that may be significant.

CC. The term "store" or "storage" means holding a substance prior to or after its use. The terms shall not include any associated and connected piping.

DD. The term "toxic or hazardous substance" means:

1. any substance designated pursuant to section 311(b)(2)(A) of the Federal Water Pollution Control Act; any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress); any toxic pollutant listed under section 307(a) of the Federal Water Pollution Control Act; any hazardous air pollutant listed under section 112 of the Clean Air Act; and any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act;

2. petroleum, including crude oil or any fraction thereof, which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute); or

3. radioactive and infectious substances as defined by any applicable local, state, or federal law or regulation.

EE. The term "underground storage tank" means any one or a combination of containers, excluding all pipes connected thereto, which is used to store an accumulation of toxic or hazardous substances, and the volume of which is ten percent (10%) or more beneath the surface of the ground.

FF. The term "waters" means the accumulations of water, surface and underground, natural and artificial, public and private, or parts thereof, that are wholly or partially within, flow through or border upon this county. The term does not include any private pond or any off stream pond, reservoir, or facility built for reduction or control of pollution or cooling water prior to discharge unless the discharge from the pond, reservoir or facility causes or threatens to cause water pollution.

Section 4. Prohibitions.

The negligent, reckless, knowing, or intentional spill of a toxic or hazardous substances is prohibited. Placing toxic or hazardous substances in a location at a facility that would allow a spill of such substances in the event of an

accidental release is prohibited. The discharge of process wastewater into or above an aquifer is prohibited without a permit from the appropriate local, state, or federal agency except as stated in the Rules and Regulations adopted under and pursuant to this Ordinance.

Section 5. Registration Requirements.

A. Commercial/Industrial On-Site Wastewater Disposal Systems.

1. Commercial or industrial facilities which possess an on-site waste water disposal system emptying, releasing, injecting, dumping, or disposing upon or into the ground including septic systems, drywells, unlined lagoons, oil water separators, or other field absorption systems shall register with the Health Department in accordance with the Rules and Regulations adopted under and pursuant to this Ordinance.

2. Registration required under this Section, if not previously submitted under the original Elkhart County Ground Water Protection Ordinance effective May 1, 1989, shall be submitted within sixty (60) days after the effective date of the adoption of this Ordinance.

B. Commercial/Industrial Toxic or Hazardous Substance Storage Areas.

1. Facilities that store toxic or hazardous substances shall register with the Health Department in accordance with the Rules and Regulations adopted under and pursuant to this Ordinance.

2. Registration required under this Section, if not previously submitted under the original Elkhart County Ground Water Protection Ordinance effective May 1, 1989, shall be submitted within sixty (60) days after the effective date of the adoption of this Ordinance.

Section 6. Waste Water Testing.

Commercial or industrial facilities which possess an on-site waste water disposal system emptying, releasing, injecting, dumping, or disposing upon or into the ground including septic systems, drywells, unlined lagoons, oil water separators, or other field absorption systems shall furnish a waste water characterization for each system to the Health Department in

accordance with the Rules and Regulations adopted under and pursuant to this Ordinance. The Health Department may at any time require an additional sample be taken with a Health Department representative present and the sample then analyzed and furnished to the Health Department at the facility's expense.

Section 7. Wells and Wellhead Protection.

A. Public Wellhead Protection Area.

The Elkhart County Plan Commission shall study, establish, and submit recommended rules, regulations, policies, procedures, amendments to the comprehensive plan, and amendments to the zoning ordinance to the Commissioners for consideration which shall have the purpose and effect of protecting the public wellhead protection area. The plan commissions of all municipalities in the County and all political subdivisions in the County with public wellhead protection areas should, and it is recommended that they also, study, establish, and submit recommended rules, regulations, policies, procedures, amendments to comprehensive plans, and amendments to zoning ordinances to the appropriate elected officials for consideration which would have the purpose and effect of protecting the public wellhead protection area.

B. Well Construction Logs.

For wells subject to Indiana Code Sections 25-39-4 et seq., a copy of the well construction log for each well constructed in the County, regardless of the method of construction or intended use, shall be submitted by the water well driller to the Health Department within thirty (30) days after construction. Each well construction log shall, in addition to disclosing the well's intended use, provide all information listed in Indiana Code Section 25-39-4-1.

Section 8. Above Ground Storage of Toxic or Hazardous Substances.

A. The storage of toxic or hazardous substances in containers, whether portable or non-portable, in which more than ninety percent (90%) of the volume of the container, excluding all pipes connected thereto, is at or above the final

ground elevation, shall be restricted and regulated in accordance with the Rules and Regulations adopted under and pursuant to this Ordinance.

B. In addition to the Rules and Regulations adopted under and pursuant to this Section, all applicable state and federal requirements for storage, leak detection, record keeping, spill prevention, emergency response, transportation, and disposal shall be met.

Section 9. Education and Review Program.

A. Following the adoption of this ordinance, the County may adopt and implement an on-going program designed to educate and inform the public, as well as respond to questions from the public, concerning ground water pollution, ground water protection, and this ground water Ordinance.

B. Following the adoption of this Ordinance, there shall be established a Ground Water Ordinance Advisory Board which shall be composed of five (5) members. The members of this Advisory Board shall be composed of one (1) member of the Commissioners or the Commissioners' designee, one (1) member of the Elkhart County Council or the Council's designee, one (1) member of the Elkhart County Board of Health or the Board of Health's designee, one (1) member as an Elkhart County citizen representative who has an environmental interest which member shall be designated by the Board of Health, and one (1) member as an Elkhart County business or commerce representative with any Chamber of Commerce located in Elkhart County eligible to make recommendations for the representative and which member shall be designated by the Commissioners. Designees shall serve at the pleasure of the appointing authority. The Advisory Board shall meet as necessary but shall meet at least quarterly. The Advisory Board shall be responsible for studying, analyzing, evaluating, and reviewing the implementation, operation, maintenance, effectiveness, compliance, and enforcement of this Ordinance and the Rules and Regulations adopted under and pursuant to this Ordinance. The Advisory Board shall review this Ordinance at least once every two (2) years for purposes of determining whether all or any portion of this Ordinance has been superseded by any state or federal law or regulation, and if so, whether all or any portion of this Ordinance should be repealed. The Advisory Board shall report to the Board of Health at least once every two (2) years within thirty' (30) days after completing its review with respect to the results of its review. The Advisory Board shall also be responsible for making any other recommendations to the Commissioners and

the Board of Health for revisions, additions, and amendments to this Ordinance and the Rules and Regulations adopted under and pursuant to this Ordinance.

Section 10. Reportable Spills

A. The following spills from a facility must be reported:

1. A spill of toxic or hazardous materials, excluding petroleum and motor vehicle operating fluids, when the amount exceeds one hundred (100) pounds or the reportable quantity which ever is less;

2. A spill of petroleum or motor vehicle operating fluids when the total amount exceeds fifty-five (55) gallons;

3. A spill of toxic or hazardous materials that damage waters of the state within the borders of Elkhart County; and

4. Any spill which does not have a spill response.

B. The operator of a facility shall notify by telephone the Environmental Health Services Division of the Elkhart County Health Department or the 911 system as soon as possible within twenty-four (24) hours of the discovery of any reportable spill in the county that is owned by and/or subject to the control of the facility. The operator shall provide the best available information of what was spilled, how much was spilled, when the spill occurred, where the spilled occurred, and what spill response was taken.

C. The owner or operator of a facility from which a spill occurs shall, upon discovery of a spill, do the following:

1. Contain the spill, if possible;

2. Undertake or cause others to undertake activities needed to accomplish a spill response; and

3. If the spill is considered a reportable spill as defined within Section 10 (A), submit within ten (10) working days a spill report to the Environmental Health Services Division of the Elkhart County Health Department.

Section 11. Records.

In accordance with the Rules and Regulations adopted under and pursuant to this Ordinance, a copy of the records pertaining to registration under this Ordinance shall be retained by the facility for not less than three (3) years and shall be made available for review by the County upon request.

Section 12. Penalties.

A. Any person who violates any provision contained in this Ordinance, in the Rules and Regulations adopted under and pursuant to this Ordinance, or in any variance granted pursuant to Section 15 may be fined up to Two Thousand Five Hundred Dollars ($2,500.00) for each violation. Each day that a violation continues shall be deemed to constitute a separate violation. In assessing any fine under this Ordinance, the nature of the violation, the seriousness of the violation, the culpability of the violator, the harm or potential harm involved by the violation, and any other relevant factors shall be considered.

B. Whenever any violation of this Ordinance, the Rules and Regulations adopted under and pursuant to this Ordinance, or any variance granted pursuant to this Ordinance is occurring, the Health Department may order the violation stopped by written notice served on any person in violation, and such person upon receiving said notice shall immediately cease the violation.

C. The County may institute suit for injunction or fines in the County's Circuit or Superior Courts to restrain any person from or fine any person violating the provisions of this Ordinance, any Rules and Regulations established under and pursuant to Section 16 below, or any variance granted pursuant to Section 15 below.

Section 13. Enforcement.

A. The provisions of this Ordinance and the Rules and Regulations adopted under and pursuant to this Ordinance shall be mutually administered and enforced by the Commissioners and the Board of Health as agreed upon by the Commissioners and the Board of Health.

B. Inspections to assure compliance and to investigate alleged violations of this Ordinance might be conducted at any time in accordance with the requirements of law. Whenever necessary to make an inspection or to enforce

this Ordinance, any facility or premises may be entered at all reasonable times upon presentation of proper credentials and demand for entry. If entry is refused, recourse shall be had to every remedy provided by law to secure entry.

C. Upon request, the owner or operator of any facility at which toxic or hazardous substances are used, stored, or generated shall furnish the Health Department all information then currently available to the facility deemed necessary by the Health Department to monitor compliance with this Ordinance.

Section 14. Appeals.

Any decision regarding a variance request may be appealed to the Commissioners by any person adversely affected by that decision and the appeal shall be processed under all laws, rules, and regulations applicable to the Commissioners. Any appeal to the Commissioners must be taken no later than thirty (30) days following written notice of the decision. In addition, any person adversely affected by a decision of the Commissioners as a result of an appeal to the Commissioners shall have the right of appeal as in other civil actions if such person gives fifteen (15) days written notice of intent to do so to the Commissioners by certified U. S. mail. The notice shall concisely state the alleged grievance. It is specifically provided that failure to appeal to the Commissioners and exhaust other remedies shall work as a bar to the right to appeal to the Courts.

Section 15. Variances.

A. Although the provisions of this Ordinance are to be followed with strict compliance, certain individual cases may justify the issuance of a variance while still allowing for consistent protection of ground water resources.

B. All requests for variances shall be processed under the Rules and Regulations adopted under and pursuant to this Ordinance. In no case, however, shall a variance be granted which will violate existing federal, state, or local law or regulation.

Section 16. Adoption of Rules and Regulations.

Rules, regulations, and forms necessary to implement, effectuate, interpret, and assure compliance with the requirements of this Ordinance shall be

adopted by the Commissioners in accordance with the requirements of law following consideration, review, and recommendations from the Board of Health.

Section 17. Compliance with Other Laws.

Compliance with this Ordinance does not obviate or eliminate the necessity of complying with any and all other applicable federal, state, or local laws and regulations with respect to toxic or hazardous substances.

Section 18. Construction.

A. To the extent that any provision of this Ordinance is ultimately determined by a court of competent jurisdiction to be preempted by any state or federal law, this Ordinance shall automatically be deemed amended by eliminating the preempted provision and incorporating in its place the applicable provision of the preempting state or federal law.

B. Each provision of this Ordinance shall be construed so as to be valid and enforceable. In addition, each provision of this Ordinance shall be construed as separate, to the end that if any part of it shall be held invalid for any reason, the remainder shall continue in full force and effect.

Section 19. Sunset Provision.

This Ordinance and the Rules and Regulations adopted under and pursuant to this Ordinance shall expire and shall be rendered null and void five (5) years after the effective date of this Ordinance unless the Ordinance and its Rules and Regulations are approved and re-adopted by the Commissioners and the Board of Health.

Section 20. Effective Date.

This Ordinance shall take effect on the 1st day of May 1999 and shall serve to prospectively supersede the Elkhart County Ground Water Protection Ordinance dated May 1, 1994 and the Rules and Regulations adopted thereunder. All actions, omissions, events, or circumstances existing or occurring prior to May 1, 1999 shall be governed by the prior Elkhart County Ground Water Protection Ordinances and the Rules and Regulations adopted thereunder.

ADOPTED AND ENACTED this 19 day of April, 1999.

BOARD OF COMMISSIONERS OF THE COUNTY OF ELKHART, INDIANA

By: _____
Amos Sheets, President

By: _____
Philip E. Neff

By: _____
Phil Stiver

ATTEST:

_____
Stephen J. Malone
Elkhart County Auditor

RULES AND REGULATIONS
ELKHART COUNTY
GROUND WATER PROTECTION ORDINANCE
May 1, 1999

Section 1 GENERAL PROVISIONS

(A) These rules and regulations shall be administered by the Health Department through its Health Officer and his or her authorized representative.
(B) These rules and regulations contain requirements for the implementation of the Elkhart County Ground Water Protection Ordinance.
(C) These rules and regulations apply to facilities which use, store, or generate toxic or hazardous substances.
(D) The definitions contained in the Elkhart County Ground Water Protection Ordinance shall be applicable to the terms as used in these rules and regulations.

Section 2 REGISTRATION.

(A) GENERAL REQUIREMENTS

Registration required under Sections 2(C) and 2(D) of these rules and regulations shall be submitted by the operator of the facility on forms approved by the Health Department and shall include, at a minimum, the following information:

(1) name of the facility;

(2) street and mailing address of the facility; and

(3) designated individual for contact purposes.

The registration shall be a one-time registration with the operator of the facility responsible for maintaining a current registration. Registration is non-transferable.

(B) Any facility receiving any toxic or hazardous substance in pre-packaged containers only and offering such containers unopened for direct resale shall be exempt from registration under this Section.

(C) COMMERCIAL/INDUSTRIAL ON-SITE WASTEWATER DISPOSAL SYSTEM REGISTRATION

(1) In addition to the registration requirements set forth in Section 2(A) above, the following information is required for compliance with Section 5(A) of the Ordinance:

(a) number, type, and location of on-site disposal systems present; and

(b) estimated flow rate to each on-site disposal system.

(2) The operator of a facility shall notify the Health Department within sixty (60) days of any change at the facility, except estimated flow rate changes, after the initial registration which renders the information contained in the then existing registration inaccurate.

(3) Any facility subject to registration after the effective date of the Ordinance shall register with the Health Department within sixty (60) days and shall meet all other applicable requirements of these rules and regulations.

(4) Closed system heat pumps, irrigation systems, storm water systems, and non-contact cooling water systems are exempt from registration under this Section 2(C).

(D) TOXIC OR HAZARDOUS SUBSTANCE STORAGE AREA REGISTRATION

(1) Facilities which store toxic or hazardous substances in aggregate quantities greater than 100 kilograms per month (approximately equal to 25 gallons or 220 pounds) shall register with the Health Department.
(2) Agricultural and residential underground storage tanks of less than eleven hundred (1,100) gallon capacity and which are

used for storing motor fuels for non-commercial purposes and any underground storage tanks used for storing heating oil for consumptive use on the premises shall register with the Health Department.

(3) In addition to the registration requirements set forth in Section 2(A) above, the following information is required for compliance with Section 5(B) of the Ordinance:

(a) general classification of substance stored; (ignitable,corrosive, reactive, toxic)
(b) maximum amount stored in any month;
(c) type of storage container; and
(d) location of storage (indoor/outdoor).

(4) The operator of a facility shall notify the Health Department within sixty (60) days of any change at the facility after the initial registration which renders the information contained in the then existing registration inaccurate.

(5) Any facility subject to registration after the effective date of the Ordinance shall register with the Health Department within sixty (60) days and shall meet all other applicable requirements of these rules and regulations.

(6) Hazardous waste storage areas that are regulated under RCRA shall be considered to have met the registration requirements under this section.

(7) Any laboratory that is a facility and any laboratory contained in a facility shall be exempt under this Section 2(D) but only with respect to its laboratory activities.

(8) Any registration information already provided to the Local Emergency Planning Committee by a facility in accordance with Title III of the Superfund Amendments and Reauthorization Act (SARA), commonly known as the Emergency Planning and Community Right-To-Know Act, as amended, shall be considered to have met the registration requirements of this Section 2(D). A facility with toxic or

hazardous substances not reportable under SARA but in the excess of the threshold registration quantities under this Section 2(D) shall register with the Health Department.

Section 3 COMMERCIAL/ INDUSTRIAL WASTEWATER TESTING.

A wastewater characterization shall be provided by any facility required to register under both Section 2(C) and Section 2(D) of these rules and regulations and each such facility shall be subject to the following:

(A) A wastewater characterization for each on-site disposal system shall be provided by an independent, qualified laboratory using standard EPA methods appropriate for the testing and analysis being performed. In the absence of a liquid wastewater sample, soils from the wastewater system may be used to determine wastewater characterization upon prior written approval from the Health Department.

(B) Minimum testing required shall be directly related to the hazardous and/or toxic substances identified at the facility. Tests may include, but are not limited to, the following analyses:

(1) Total Toxic Organics (volatile organic chemicals, semi-volatile organic chemicals, pesticides);

(2) Heavy Metals (as listed in federal and/or state Primary Drinking Water Standards).

(C) Sampling Method Requirements.

All individuals obtaining wastewater samples for compliance with this Section 3 shall meet all requirements set forth in these rules and regulations and the United States Environmental Protection Agency document SW-846, "Test Methods for Evaluating Solid Waste, 3rd. Edition," as amended from time to time or methodology approved in writing by the Health Department. Samples shall be representative of facility effluent discharges. Practices such as dilution or treatment which change the representative facility effluent discharge are a violation of these rules and regulations. The individual who obtains

the wastewater sample shall certify compliance with these sampling method requirements.

(D) Chain of Custody.

Chain of custody procedures shall be followed on all wastewater sampling, handling, and testing procedures.

(E) For facilities subject to this section, an initial wastewater characterization shall be required within a period of six (6) months but no longer than fifteen (15) months after being placed in service. No further wastewater characterization shall be submitted unless deemed necessary by the Health Department. The Health Department may request additional testing for a facility if the Health Department has a rational basis for doing so based upon inspection, complaint, operational change at the facility, or contamination of the wastewater system or groundwater in the area.

Section 4 ABOVE GROUND STORAGE OF TOXIC OR HAZARDOUS SUBSTANCES.

The following requirements shall apply under Section 8 of the Ordinance:

(A) A containment system for above ground storage of toxic or hazardous substances outside shall be maintained and must be designed and operated as follows:

(1) A base must underlay the storage container(s) which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

(2) The base must be sloped or the containment system must be otherwise designed and operated so as to allow the drainage and removal of liquids resulting from leaks, spills, or precipitation;

(3) The containment system must have sufficient capacity to contain 10% of the total volume of the containers or 110% of

the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in the determination;

(4) Precipitation run-off into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in subsection (A)(3) above to contain any run-off which might enter the system;

(5) A containment system must be properly maintained to protect the integrity and capacity of the containment system; and

(6) Spilled or leaked materials and accumulated precipitation must be legally removed and disposed of from the sump or collection area in a timely manner as necessary to prevent overflow of the containment system.

(7) A facility that is in compliance with 327 IAC 2-10-6 shall be considered to be in compliance with the construction requirements of this Section 4(A) of these Rules and Regulations.

(B) Toxic or hazardous substances may not be located in a manner that would allow a spill onto the ground or into a drain that is connected to an on-site wastewater disposal system that drains or empties into the ground.

(C) Outside storage of toxic or hazardous substances is prohibited except in product-tight containers.

(D) Drainage of precipitation from within any area designed to contain a spill of a toxic or hazardous substance shall be controlled in a manner that will prevent any toxic or hazardous substance from entering into or upon the soil, surface water, or ground water of Elkhart County.

(E) Exemptions.

(1) Agricultural and residential facilities shall be exempt under this Section.

(2) Above ground storage tanks which contain solids or gases at ambient temperature and pressure shall be exempt under this Section.

(3) Integral operating fluids contained within machinery or equipment provided that these fluids are necessary for the proper operation of the equipment shall be exempt under this Section.

(4) Process tanks shall be exempt under this Section.

(F) Above ground storage tanks existing and placed in service prior to May 1, 1989 shall be exempt from secondary containment provided:

(1) The registration requirements of these rules and regulations are met;

(2) Adequate measures are taken so as to prevent incidental leaks and spills from contacting the ground at all loading and off-loading areas; and

(3) An acceptable means of establishing tank integrity and product-tightness is in place and utilized by the facility, and the facility is in compliance with the requirements for conducting tank integrity and product-tightness testing every two (2) years since May 1, 1989 or documentation prepared by an independent registered professional engineer of an alternate testing frequency assuring tank integrity and product-tightness has been provided. If the facility has not maintained testing frequency or is unable to establish tank integrity and product-tightness, secondary containment shall be required.

(G) Any relocation of an existing above ground storage tank previously exempt under Section 4 (F) of the Rules and Regulations

shall no longer be exempt and shall be required to comply with all applicable requirements of this Section.

(H) Designated temporary storage areas such as may exist in loading areas shall be exempt from sections 4(A) and 4(D) of these Rules and Regulations provided they meet the following conditions:

(1) Containers are temporarily stored on a surface impervious to the materials within the container;

(2) Storage of containers shall not exceed two (2) business days prior to container placement in another non-temporary storage area;

(3) Documentation must be immediately available to ascertain the exact date of delivery of the containers in order to determine compliance; and

(4) The facility has developed a spill response plan as required by 327 IAC 2-10-8, as amended.

(I) A petroleum storage area at a construction site shall be exempt from Sections 4 (A) and 4(D) of these Rules and Regulations provided it meets all the following conditions:

(1) Only one such storage area may exist at a facility;

(2) Only petroleum products may be exempted;

(3) No single container shall exceed three hundred (300) gallons;

(4) The total amount of petroleum products does not exceed six hundred and sixty (660) gallons;

(5) The facility has established a regular weekly inspection program with documentation of inspection date and inspector to insure the storage area is being maintained and spills have not occurred;

(6) The containers are clearly labeled; and

(7) The facility has developed and maintained a spill response plan as outlined by 327 IAC 2-10-8, as amended.

Section 5 RECORDS.

All records required by these rules and regulations or copies thereof shall be transferred to any new owner or operator of a facility that is sold, leased, transferred to, or received by a new owner or operator. The transfer of such records shall in no way operate to eliminate or obviate the necessity of the new owner or operator to register with the Health Department as required by these rules and regulations. All records required by these rules and regulations shall be made available for review by the Health Department upon request.

Section 6 VARIANCES

(A) All requests for variances must be in writing to the Health Department and must contain all specifications, studies, or evidence showing why such a variance should be granted. The Health Department shall review the variance request and submit its recommendations to the Board of Health.

(B) Variances from the Ordinance or the rules and regulations may be granted by the Board of Health after a hearing in compliance with general public notice at least ten (10) days prior to the hearing at which the applicant establishes that the requested variance will not jeopardize or degrade the ground water or create other hazards to human health and that requiring strict compliance with the requirements of the Ordinance and the rules and regulations would create an undue burden upon the applicant. In granting variances, the Board of Health shall take into consideration the amount and type of toxic or hazardous substances involved the rate and direction of ground water flow soil conditions depth to ground water size and slope of site existing and known future water supplies and any other relevant factors. All variances shall be site specific, in writing, and include any and all conditions deemed necessary by the Board of Health to protect the ground water and to prevent other hazards to human health. Prior to considering a variance request with respect to

the wastewater characterization requirements, the Board of Health will require the applicant to conduct and submit not less than one (1) such wastewater characterization.

APPROVED AND ADOPTED this 19 day of April, 1999 to be effective May 1, 1999.

BOARD OF COMMISSIONERS OF THE COUNTY OF ELKHART, INDIANA

By: _____
Amos Sheets, President

By: _____
Philip E. Neff

By: _____
Phil Stiver

ATTEST:

_____
Stephen J. Malone
Elkhart County Auditor

IC 16-20

ARTICLE 20. LOCAL HEALTH DEPARTMENTS

IC 16-20-1
Chapter 1. Powers and Duties of Local Health Departments

IC 16-20-1-1

Sec. 1. (a) Powers and duties described in this chapter and IC 16-20-8 apply to all local health officers and local health boards. However, this article does not apply to a county that is subject to IC 16-22-8.

(b) The powers and jurisdiction of a local health officer or local board are limited to the area in which the officer or board serves.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-2

Sec. 2. A local health department shall operate as an agency of local government administratively responsible to the appropriate county or city executive.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-3

Sec. 3. The board of each local health department may adopt procedural rules for the board's guidance and to establish administrative and personnel policies of the local health department that are consistent with the administrative operating policy of the appointing authority.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-4

Sec. 4. The board of each local health department shall, immediately after appointment, meet and organize. The board shall elect a chairman, vice chairman, and other officers the board considers necessary.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-5

Sec. 5. The board of each local health department shall submit an annual budget to the county executive, county fiscal body, and city fiscal body concerned with approval of the budget at the regular time for consideration of annual budgets.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-6

YAMD.1993

Sec. 6. The board of each local health department shall provide, equip, and maintain suitable offices, facilities, and appliances for the health department.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-7

Sec. 7. The board of each local health department shall publish in pamphlet form, within ninety (90) days after January 1, for free distribution, an annual report for the previous year showing the following:

(1) The amount of money received from all sources.

(2) The name of any donor.

(3) How all money has been expended and for what purpose.

(4) Other statistics and information concerning the work of the health department that the board considers to be of general interest.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-8

Sec. 8. (a) The board of each local health department may enter into contract with the state department, other local boards of health, other units of government, a private individual, or a corporation for the provision of health services within the board's jurisdiction. The private contracts are subject to approval of the county executive or city executive.

(b) A local board of health, a county executive, or a city fiscal body may contract with or purchase from any individual, organization, limited liability company, partnership, or corporation planning services considered essential to the development of an effective community health program.

As added by P.L.2-1993, SEC.3. Amended by P.L.8-1993, SEC.250.

IC 16-20-1-9

Sec. 9. The board of each local health department shall prescribe the duties of all officers and employees.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-10

Sec. 10. The local health officer shall keep full and permanent records of the public health work of the local health department and minutes of all meetings of the board of the local health department.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-11

YAMD.1993

Sec. 11. The local health officer shall make a monthly report of the work done by the local health department to the board of the local health department. After the report is approved by the board, the local health officer shall make the report a permanent record.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-12

IC 16-20-1-12 Sec. 12. Reports of local health department activities shall be made to the state department, as required by the rules of the state department.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-13

Sec. 13. (a) The local health officer or a representative of all county or city boards of health shall attend meetings of the state department, when requested by the state department, for consultation concerning any matter concerning public health.

(b) The expenses of the local health officer or representative must be paid out of the health fund of the county or the city where the board of health is established, in an amount determined by the local board of health.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-14

Sec. 14. (a) Local health officers may appoint and employ public health nurses, environmental health specialists, computer programmers, clerks, other personnel, and an administrator of public health,

subject to the confirmation of the local board of health, as is necessary and reasonable to carry out and perform the duties of the local health department.

(b) Except as provided in subsection (d), the employees of local health departments shall perform any of the duties of the health officer delegated by the health officer, with the approval of the local board of health, on the basis of an agent-principal relation.

(c) The public health personnel of local health departments:

(1) must meet the minimum qualification requirements of the local board of health;

(2) by local ordinance, become part of the county classification system for the respective public health personnel positions; and

(3) shall perform additional duties prescribed by the rules of the state department and local board of health under the general supervision of the local health officer.

(d) If an appointee or employee of a local health officer is not a licensed water well driller under IC 25-39-3, the appointee or employee may not inspect the drilling of a water well.

As added by P.L.2-1993, SEC.3. Amended by P.L.105-1999, SEC.1.

IC 16-20-1-15

Sec. 15. (a) The board of city health departments shall recommend and the city fiscal body shall fix the compensation of employees of the city health department.

(b) The county fiscal body shall fix the compensation of the employees of county health departments, in the manner provided by IC 36-2-5 or IC 36-3-6, after consideration of the recommendations of the local board of health.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-16

Sec. 16. The board of each local health department shall authorize payment of salaries and all other department expenses from the proper fund.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-17

Sec. 17. (a) The local health officer shall collect, record, and report to the state department the vital statistics for the local health officer's area of jurisdiction.

(b) The local health officer shall be the registrar of births and deaths. After making a birth or death record, the local health officer shall, by the fourth day of each month, forward the original record to the state department.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-18

Sec. 18. A health officer may, on behalf of the local board of health, receive financial assistance from an individual, an organization, or the state or federal government. The financial assistance must be approved by the county executive or city fiscal body and the local board of health.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-19

Sec. 19. Local health officers shall enforce the health laws, ordinances, orders, rules, and regulations of the officer's own and superior boards of health.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-20

Sec. 20. A proposed rule of the state department or a local board of health mandating additional or revised local services must include a general fiscal impact statement of the rule or ordinance.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-21

Sec. 21. Each local health board has the responsibility and authority to take any action authorized by statute or rule of the state department to control communicable diseases. The board of each local health department or a designated representative may make sanitary and health inspections to carry out this chapter and IC 16-20-8.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-22

Sec. 22. Local health officers may make sanitary inspections and surveys of all public buildings and institutions.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-23

IC 16-20-1-23 Sec. 23. (a) Except as provided in subsection (b), the local health officer or the officer's designee may enter upon and inspect private property, at proper times after due notice, in regard to the possible presence, source, and cause of disease. The local health officer

or designee may order what is reasonable and necessary for prevention and suppression of disease and in all reasonable and necessary ways protect the public health.

(b) However, a local health officer, or a person acting under the local health officer, shall not inspect property in which the local health officer has any interest, whether real, equitable, or otherwise. Any such inspection or any attempt to make such inspection is grounds for removal as provided for in this article.

(c) This section does not prevent inspection of premises in which a local health officer has an interest if the premises cannot otherwise be inspected. If the premises cannot otherwise be inspected, the county health officer shall inspect the premises personally.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-24

Sec. 24. (a) Local health officers may order schools and churches closed and forbid public gatherings when considered necessary to prevent and stop epidemics.

(b) An individual who takes action under this section shall comply with state laws and rules.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-25

Sec. 25. (a) A person shall not institute, permit, or maintain any conditions that may transmit, generate, or promote disease.

(b) A health officer, upon hearing of the existence of such unlawful conditions within the officer's jurisdiction, shall order the abatement of those conditions. The order must:

(1) be in writing if demanded;

(2) specify the conditions that may transmit disease; and

(3) name the shortest reasonable time for abatement.

(c) If a person refuses or neglects to obey an order issued under this section, the attorney representing the county of the health jurisdiction where the offense occurs shall, upon receiving the information from the health officer, institute proceedings in the courts for enforcement. An order may be enforced by injunction. If the action concerning public health is a criminal offense, a law enforcement authority with jurisdiction over the place where the offense occurred shall be notified.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-26

Sec. 26. (a) A local board of health or local health officer may enforce the board's or officer's orders

by an action in the circuit or superior court. In the action, the court may enforce the order by injunction.

(b) The county attorney in which a local board of health or local health officer has jurisdiction shall represent the local health board and local health officer in the action unless the county executive employs other legal counsel or the matter has been referred through law enforcement authorities to the prosecuting attorney.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-27

Sec. 27. The board of each local health department may, with the approval of the county or city executive, establish and collect fees for specific services and records established by local ordinances and state law. However, fees may not exceed the cost of services provided. The fees shall be accounted for and transferred to the health fund of the taxing jurisdiction.

As added by P.L.2-1993, SEC.3.

IC 16-20-1-28

Sec. 28. (a) A local health officer may be removed only for failure to:

(1) perform the officer's statutory duties; or

(2) enforce the rules of the state department.

(b) Except as provided in IC 16-19-3-12, IC 16-19-3-13, and IC 16-19-3-15, a local health officer may be removed only by the board that appointed the health officer.

(c) When removal of a local health officer is sought by the appointing authority, the local health officer is entitled to the following:

(1) At least five (5) days notice.

(2) An open hearing.

(3) Representation by counsel.

As added by P.L.2-1993, SEC.3.

INDIANA DEPARTMENT OF NATURAL RESOURCES

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April 5, 1995

TO ALL PARTIES INTERESTED IN
WATER WELL DRILLING REGULATIONS

Enclosed is an updated copy of the water well drilling rules (310 IAC 16). This is notification that several changes have been made to this document and you may need to adjust your procedures accordingly. These rules are currently in effect.

Several amendments have been made to the well drilling rules that include standards for the construction and abandonment of dewatering wells, requiring a temporary cap be placed on the casing until pumping equipment or a pitless adapter is installed, and abandonment requirements for cased or uncased bucket wells or hand dug wells abandoned before January 1, 1988. In addition, the rules now require that a rotary or augered well constructed in an unconsolidated aquifer shall have the borehole annulus pressure grouted from the top of the gravel pack to the ground surface. Wells penetrating bedrock shall have the borehole annulus pressure grouted from the bottom of the well casing or the top of the formation packer to the ground surface.

Should you have question regarding these well drilling rules, please call Terri Swoveland at 317-232-1118.

RULES

TITLE 310

FINAL RULES CONCERNING THE REGULATION OF WATER WELL DRILLING

ARTICLE 16. WATER WELL DRILLERS

Rule 1. Definitions

310 IAC 16-1-1 General application of definitions

Sec. 1. The definitions are in addition to those contained in IC 25-39-2 and apply throughout 310 IAC 16.

310 IAC 16-1-1.5 "Abandon" defined

Sec. 1.5. "Abandon" means to terminate operations of a well for water supply, monitoring, dewatering, or geothermal purposes and to restore the site of the well in a manner that will protect ground water resources from contamination.

310 IAC 16-1-2 Aquifer characteristics

Sec. 2. "Aquifer characteristics" describe the type, thickness, transmissivity coefficient of storage, and materials of a water bearing unit.

310 IAC 16-1-3 "Bentonite" defined

Sec. 3. "Bentonite" means clay material composed predominantly of sodium montmorillonite which meets American Petroleum Institute specifications standard 13-A (1985).

310 IAC 16-1-4 "Bentonite slurry" defined

Sec. 4. "Bentonite slurry" means a mixture, made according to manufacturer specifications, of water and commercial grouting or plugging bentonite which contains high concentrations of solids. The term does not include sodium bentonite products which contain low solid concentration or which are designed for drilling fluid purposes.

310 IAC 16-1-5 Bridge

Sec. 5. "Bridge" means a barrier created by any unwanted object or material which prevents the introduction of grouting materials in the borehole or well.

310 IAC 16-1-6 Coarse grade crushed bentonite

Sec. 6. "Coarse grade crushed bentonite" means natural bentonite crushed to an average size range of three-eighths (3/8) to three-fourths (3/4) inches.

310 IAC 16-1-6.5 "Commission" defined

Sec. 6.5. "Commission" refers to the natural resources commission established under IC 14-3-3-3.

310 IAC 16-1-7 Competency examination

Sec. 7. "Competency examination" means an examination given by the department which is designed to establish the capability and skill of an individual to operate as a water well driller.

310 IAC 16-1-8 Confined aquifer

Sec. 8. "Confined aquifer" means an aquifer which contains sufficient hydrostatic head to cause ground water to rise above the upper boundary of the aquifer.

310 IAC 16-1-9 Contamination

Sec. 9. "Contamination" means the degradation of natural water quality as a result of human activities.

310 IAC 16-1-9.5 "Dewatering well" defined

Sec. 9.5. "Dewatering well" means a temporary water well that:

(1) is used as part of a construction project to remove water from a surface or subsurface area; and

(2) ceases to be used upon completion of the construction project or shortly after completion of the project.

310 IAC 16-1-10 Disinfection

Sec. 10. "Disinfection" means the process of destroying pathogenic microorganisms such as coliform bacteria.

310 IAC 16-1-11 Division

Sec. 11. "Division" means the division of water of the department of natural resources.

310 IAC 16-1-12 Drawdown

Sec. 12. "Drawdown" means the amount of lowering of the water level in a well resulting from the discharge of water by pumping from the well.

310 IAC 16-1-13 Grout pipe

Sec. 13. "Grout pipe" means a length of hose or pipe positioned in the annular space of a well, between the well casing and the borehole, used for the introduction of grouting materials.

310 IAC 16-1-14 High capacity water well

Sec. 14. "High capacity water well" means a well which has the capability of withdrawing one hundred thousand (100,000) gallons of ground water or more in one (1) day.

310 IAC 16-1-14.4 "Medium grade crushed bentonite" defined

Sec. 14.4. "Medium grade crushed bentonite" means natural bentonite crushed to an average size range of one-fourth (1/4) to three-eighths (3/8) inch.

310 IAC 16-1-14.5 "Monitoring well" defined

Sec. 14.5. "Monitoring well" means a well installed to obtain hydrogeological information or to monitor the quality or quantity of ground water.

310 IAC 16-1-15 Operating well drilling equipment

Sec. 15. "Operating well drilling equipment" means to use equipment to drill a well.

310 IAC 16-1-16 Public water supply well

Sec. 16. "Public water supply well" means a well that provides a source of water to a community water system which serves a residential population, and is defined as having fifteen (15) or more service connections or serving at least twenty-five (25) year round residents.

310 IAC 16-1-17 Reference

Sec. 17. "Reference" means a person who attests to the character and professional qualifications of an applicant for a license.

310 IAC 16-1-18 Regulatory flood

Sec. 18. "Regulatory flood" has the meaning set forth in 310 IAC 6-1-3(f).

310 IAC 16-1-19 Thermoplastic pipe

Sec. 19. "Thermoplastic pipe" means plastic well pipe made of A.B.S. (acrylonitrile butadiene styrene), P.V.C. (polyvinyl chloride) or S.R. (rubber-modified polystyrene) with standards listed in A.S.T.M. (American Society of Testing Materials).

310 IAC 16-1-20 Unconsolidated formation

Sec. 20. "Unconsolidated formation" means geologic materials or deposits such as sand, gravel and clay, overlying bedrock.

310 IAC 16-1-21 Well pit

Sec. 21. "Well pit" means a subsurface excavation which contains a well.

Rule 2. Drilling License and Well Records

310 IAC 16-2-1 Application form

Sec. 1. (a) An initial application for a license as a water well driller must be completed on a departmental form and must include the following:

(1) the name, current address, telephone number and birth date of the applicant;

(2) the type of drilling equipment the applicant uses and the number of years the applicant has operated that type of equipment;

(3) the applicable employment experience of the applicant;

(4) the signature of the applicant attesting to or affirming the accuracy of the information on the application;

(5) the license fee established under 310 IAC 16-2-2; and

(6) statements by references under IC 25-39-3-3(a)(2) or P.L. 262-1987 SECTION 7.

(b) Subsequent applications must provide what is required in subdivisions (a)(1), (a)(4) and (a)(5).

310 IAC 16-2-2 License fee; duplicate license

Sec. 2. (a) The fee to accompany any application for a license as a water well driller is one hundred dollars ($100) for a calendar year.

(b) A person who is issued a license as a water well driller may apply to the department for a duplicate license (which is effective during the same calendar year) if the original license is lost, stolen, destroyed, or otherwise becomes unavailable to the driller. The fee for a duplicate license is ten dollars ($10).

310 IAC 16-2-3 License renewals and restorations

Sec. 3. (a) A license may be renewed for the following year, without examination, under section 1(b) of this rule.

(b) A license which has been expired in excess of one (1) year may be reinstated only upon successful completion by the applicant of a competency examination and the completion of an application and submission of the license fee.

(c) A water well driller must deliver a completed renewal application form to the division at least five (5) working days before the renewal is to become effective.

310 IAC 16-2-4 Competency examination

Sec. 4. (a) A competency examination will be given by the division at least two (2) times annually. The examination will be given on a day specified by the division during the second full week of June and during the second full week of November.

(b) The fee to take the competency examination is twenty-five dollars ($25).

(c) The competency examination is in writing, but, upon request by an applicant, an oral examination will be given.

(d) An applicant must submit a valid identification card, with a photograph of the applicant, before taking the examination.

310 IAC 16-2-5 Statement by a reference

Sec. 5. A statement by a reference shall include the following information:

(1) the state of residence of the reference;

(2) the full name, address, telephone number and occupation of the reference;

(3) the length of time the reference has known the applicant;

(4) how the reference is familiar with the applicant's work;

(5) a general statement regarding their evaluation of the applicant's professional competency; and

(6) the signature of the reference attesting to or affirming the accuracy of the information on the reference form.

310 IAC 16-2-6 Well records

Sec. 6. A water well driller must submit, on a departmental form or division approved form, accurate records for each well drilled to include the following information:

(1) The method of well construction.

(2) The proposed use of the well, for example, residential, industrial, monitoring, or dewatering.

(3) Pumping information, including each of the following:

(A) the type of pump and the depth of the pump setting (if applicable);

(B) whether the well was bailer, air, or pump tested; and

(C) the test rate and length of time of test pumping.

(4) Specifications for the well casing and the well screen.

(5) The inside diameter of the well.

(6) The total depth of the well.

(7) The static water level in the well.

(8) The name, address, and telephone number of the owner (and the builder, if different from the owner).

(9) The name and address of the drilling company.

(10) The name and license number of the equipment operator.

(11) The type and thickness of formations or materials encountered, including color, hardness, and a geological description.

(12) A statement of the accuracy of the information contained on the form which is signed by the water well driller or his authorized representative upon an affirmation or attestation.

(13) The type, depth, and thickness of grouting materials and method of installation.

(14) Specific roadway directions to the well, including a reference to the nearest major highway or street intersection.

Rule 3. Well Drilling Procedures and Well Locations

310 IAC 16-3-1 Operations at drilling site

Sec. 1. A water well driller shall operate all equipment according to generally accepted standards in the industry. The driller is responsible for initiating, maintaining and supervising operations and shall take appropriate precautions to prevent damage, injury or other loss to persons and property at the drilling site.

310 IAC 16-3-2 Well locations

Sec. 2. (a) A well shall be located as follows:

(1) To use every natural protection to promote the maintenance of the well and its surroundings, and to protect the quantity and quality of ground water encountered during the construction of the well.

(2) As far as practicable from any:

(A) high capacity well; and

(B) known contamination source.

(3) To protect the well against surface water ponding, drainage, or flooding. Earthen materials shall be placed around the pitless unit or finished well casing in a manner to drain surface water away from the well. The finished well casing or pitless unit shall extend at least one (1) foot above the ground level and, if located in a designated flood hazard area, must:

(A) be at least two (2) feet above the elevation of the regulatory flood; or

(B) be equipped with a watertight pitless unit cap or well seal and vented to an elevation at least two (2) feet above the elevation of the regulatory flood.

(b) This section does not apply to a monitoring well or a dewatering well.

310 IAC 16-3-3 Standards for wells drilled adjacent to buildings

Sec. 3. (a) This section establishes standards for the placement of a well which is near a building.

(b) The center line of a well located outside and adjacent to a building shall, if extended vertically, clear any projection from the building by not less than five (5) feet.

(c) A well shall be reasonably accessible to equipment for proper cleaning, repair, testing, inspection, and other maintenance.

Rule 4. Well Equipment and Installation Specifications

310 IAC 16-4-1 Casing

Sec. 1. (a) This section establishes minimum casing requirements.

(b) A new well shall be equipped with casing having an inside diameter of at least two (2) inches. The inside diameter of the well casing shall allow for easy installation and future removal of the permanent pumping equipment.

(c) A well must be cased to a depth of at least twenty-five (25) feet below the ground surface unless otherwise approved by the division.

(d) Casing shall be constructed of a steel or thermoplastic material or a casing specified in subsection (f). Ferrous casing shall be new, first class material which meets the American Society of Testing Materials (ASTM) standards ASTM A-120 (1984) or ASTM A-53 (1987) or American Petroleum Institute (API) standards API-5A or API-5L (1987). Thermoplastic pipe shall comply with ASTM F-480 (1981).

(e) Casing used under this section must be new. Casing which is salvaged within thirty (30) days of the installation of a well is considered new if the casing is still in new condition.

(f) Steel, thermoplastic pipe, or concrete tile shall be used in bucket wells. This casing shall be new material.

(g) No finished well casing shall be cut below the ground surface except to install a pitless well adapter. A pitless adapter must meet the requirements of section 3 of this rule.

(h) Upon installation, a well casing shall be fitted with a temporary cap which remains in place until pumping equipment or a pitless adapter is installed. The cap shall be a type that prevents vermin or other potential contaminants from entering the well.

(i) This section does not apply to a monitoring well or a dewatering well.

310 IAC 16-4-2 Well screens

Sec. 2. (a) A well drilled in an unconsolidated formation shall be equipped with a well screen having adequate openings to provide for maximum water transmittance with respect to the size of the water bearing formation or gravel pack.

(b) Approved screen materials are stainless steel, brass, bronze, fiberglass, and P.V.C. or A.B.S. plastic.

(c) This section does not apply to a monitoring well or a dewatering well.

310 IAC 16-4-3 Pitless units and pitless adapters

Sec. 3. (a) A pitless unit shall do the following:

(1) Extend the upper end of the well casing at least one (1) foot above the ground level.

(2) Be affixed to the well casing in a manner which is watertight by:

(A) threading;

(B) welding (including gluing); or

(C) a mechanical connection.

(b) The cap, cover, or seal of the pitless unit shall be self-draining and overlap the top of the casing extension with a downward flange, fit securely on the well casing, and be tamper resistant.

(c) A pitless unit shall be installed under 310 IAC 16-3-2(a)(3).

(d) A pitless adapter shall be constructed and installed to prevent the entrance of contaminants in the well through openings in the well casing to which the adapter is attached.

310 IAC 16-4-4 Well pits

Sec. 4. (a) The design of a well pit which contains a well must be approved by the division before construction.

(b) This section does not apply to a monitoring well.

310 IAC 16-4-5 Construction water

Sec. 5. Water used in the drilling process shall be obtained from a source which will not result in contamination of the well or water bearing zones penetrated by the well.

Rule 5. Grouting of Wells

310 IAC 16-5-1 Materials and installation

Sec. 1. (a) This section governs grouting materials and the installation of grouting materials for new wells.

(b) Grouting materials shall consist of:

(1) neat cement with no more than five percent (5%) by weight of bentonite additive;

(2) bentonite slurry (which can include polymers designed to retard swelling);

(3) pelletized, granular, medium-grade, or coarse-grade crushed bentonite; or

(4) other materials approved by the commission.

(c) This section applies if neat cement or a bentonite slurry is used for grouting. The cement or slurry shall be pumped into place from the

bottom of the annular space upward in a continuous operation with a grout pipe or the well casing using the positive displacement method.

(d) Grouting material, other than neat cement or bentonite slurry, shall be introduced in a manner to prevent bridging of the annulus between the outside of the well casing and the borehole.

(e) A borehole annulus shall be grouted upon the earlier of the following:

(1) Within twenty-four (24) hours after the installation of the well casing.

(2) Before drilling equipment is removed from the site.

Rule 6. Minimum Well Construction Standards

310 IAC 16-6-1 Rotary or augered wells

Sec. 1. (a) This section governs the construction of wells by rotary or auger drilling methods.

(b) For other than a dewatering well, a well shall be drilled and equipped with a casing having a minimum of two (2) inches inside diameter installed in an open hole having a diameter of at least two (2) inches greater than the outside diameter of the casing.

(c) A well shall be cased to a minimum depth of twenty-five (25) feet below the ground surface, unless otherwise approved by the division.

(d) A well shall have a minimum of twenty-five (25) feet of the borehole annulus pressure grouted with neat cement or a bentonite slurry, unless otherwise approved by the division.

(e) A well penetrating bedrock shall have the borehole annulus pressure grouted with neat cement or a bentonite slurry from the bottom of the well casing, or the top of the formation packer to the ground surface (or to four (4) feet below the ground surface if a pitless adapter is installed).

(f) A well constructed in an unconsolidated aquifer shall have the borehole annulus pressure grouted with neat cement or a bentonite slurry from the top of the natural or introduced gravel pack to the ground surface (or to four (4) feet below the ground surface if a pitless adapter is installed). The gravel pack shall not extend more than ten (10) feet above the top of the well screen unless otherwise approved by the division.

(g) This section does not apply to a monitoring well or a dewatering well.

310 IAC 16-6-2 Bucket wells

Sec. 2. (a) This section governs the construction of wells by bucket rig drilling methods.

(b) A bucket well installed as buried slab construction shall conform with the following:

(1) The well casing shall terminate not less than ten (10) feet below the ground surface. The casing shall meet the requirements contained in 310 IAC 16-4-1 and must be firmly embedded in or connected to a pipe, a minimum of two (2) inches inside diameter, cast in a reinforced buried concrete slab.

(2) The annular opening between the well casing and the well bore shall be filled with washed graded gravel from the bottom of the well to the concrete slab. The annular space between the pipe and borehole shall be sealed with concrete or granular, pelletized, or coarse grade crushed bentonite at least six (6) inches thick. The remainder of the borehole shall be filled with clean earth and thoroughly tamped to minimize settling.

(c) A bucket well installed not using buried slab construction shall conform with the following:

(1) A well shall have a borehole with an inside diameter at least two (2) inches larger than the outside diameter of the lining or well casing.

(2) The well shall have a continuous watertight lining of steel casing or concrete extending at least five (5) feet below the ground surface. The casing shall meet the requirements contained in 310 IAC 16-4-1.

(3) The annulus between the inside diameter of the borehole and the outside diameter of the well casing shall be filled with washed graded gravel from the bottom of the well to a depth at least five (5) feet below the ground surface. The remaining annulus shall be sealed with neat cement, bentonite slurry, or granular, pelletized, medium grade, or coarse grade crushed bentonite from ground level to at least five (5) feet below ground level.

(4) A reinforced cover slab at least four (4) inches thick with a diameter larger than the casing shall be provided. Vents or pump piping which exit through the slab shall have the pipe sleeves cast in place. The top of the slab shall be sloped to drain to all sides and a watertight joint made where the slab rests on the well lining using a watertight sealing compound. If a manhole is installed, the manhole shall have a metal curb cast in the concrete slab and extending four (4) inches above the slab. The manhole shall have a watertight cover with the sides to overhang the curb at least two (2) inches. A vent shall be installed and shall consist of a metal pipe extending above the slab with the open end turned down and at least six (6) inches above the slab. The open end shall be covered with sixteen (16) mesh or finer screen made of durable material.

(5) A hole drilled in the casing for a below ground discharge line shall be sealed on the inside and outside of the well casing with concrete or a mastic compound.

(6) In a bucket well where casing is used with an inside diameter of less than twelve (12) inches that extends the entire depth of the borehole, the graded gravel filling the annular space between the inside of the borehole and outside of the casing shall terminate not less than ten (10) feet below ground surface. The borehole annulus shall be filled with granular, pelletized, or coarse grade crushed bentonite a minimum of six (6) inches thick and the remainder of the borehole shall be filled with clean earth and thoroughly tamped to minimize settling.

(d) This section does not apply to a monitoring well or a dewatering well.

310 IAC 16-6-3 Cable tool or jetted wells

Sec. 3. (a) This section governs the construction of wells by cable tool or jetting methods.

(b) A well installed by cable tool or jetting shall be equipped with casing having a minimum of two (2) inches inside diameter and be cased a minimum of twenty-five (25) feet below ground surface.

(c) If well casing is driven or jetted, a borehole with an inside diameter at least two (2) inches greater than the outside diameter of the casing to be driven shall be dug at least three (3) feet, but not more than five (5) feet, below ground surface. The casing shall be centered in the larger diameter borehole. A bentonite slurry, granular bentonite, or medium grade crushed bentonite shall fill the annulus during the installation of the well casing.

(d) Unless otherwise approved by the division, a well must be grouted under section 1 of this rule if either of the following conditions exist:

(1) A larger diameter temporary casing is used to install a smaller diameter permanent well casing.

(2) A larger diameter borehole is drilled to install a smaller diameter well casing.

(e) This section does not apply to a monitoring well or a dewatering well.

Rule 7. Well Yield

310 IAC 16-7-1 Well yield

Sec. 1. (a) Every well (which is to be equipped with a pump) shall be tested for yield. The well shall be test pumped at a capacity at least equal to

the pumping rate desired from the well during normal usage.

(b) A well shall be developed and tested at capacity for a minimum of one (1) hour. The yield and drawdown shall be recorded.

(c) Pumping equipment shall be installed at a depth to allow for drawdown caused by:

(1) the pumping equipment itself; and

(2) seasonal water level fluctuations.

(d) This section does not apply to a monitoring well or a dewatering well.

Rule 8. Other Wells and Structures

310 IAC 16-8-1 Geothermal heat pump wells

Sec. 1. (a) This section establishes standards for drilling ground water heat pump systems which are in addition to the general requirements for drilling a well under 310 IAC 16.

(b) If a return well is used with an open loop system, its design shall provide a water transmitting capacity that is at least one and one-half (1 1/2) times the required water supply of the heat pump unit.

(c) With respect to a vertical closed loop system, boreholes shall be pressure grouted from the bottom of the borehole to the ground surface.

310 IAC 16-8-2 Radial collector wells

Sec. 2. Plans and specifications for a radial collector well must be approved by the division before drilling begins. Factors to be considered by the division include the depth of the well, well casing materials, well sealing procedures, types of aquifer materials and the location of the proposed well.

310 IAC 16-8-3 Monitoring wells

Sec. 3. (a) This section establishes standards for monitoring wells which are in addition to the general requirements for drilling a well under this article.

(b) A monitoring well shall be equipped with casing having a nominal diameter of at least:

(1) three-fourths (3/4) of an inch if the well is installed for the primary purpose of monitoring ground water levels; or

(2) two (2) inches if the well is installed for the primary purpose of monitoring the quality of ground water.

(c) Monitoring well casing shall be new first class material which meets the American Society of Testing Materials (ASTM) standards ASTM A-120 (1984) or ASTM A-53 (1987) or the American Petroleum Institute (API) standards API-5A or API-5L (1987). Thermoplastic pipe shall comply with ASTM F-480 (1981). Well casing shall be as follows:

(1) Clean and free of rust, grease, oil, or contaminants and composed of materials that will have minimal impact on the quality of a water sample.

(2) Centered in the borehole and free of obstructions so that monitoring devices can be lowered into the well.

(d) A monitoring well screen shall be composed of materials that will not corrode or react with chemicals found in the ground water at the site. The well screen slots shall not be hand cut and shall be sized to retain at least ninety percent (90%) of the grain size of the introduced filter pack. The filter pack shall be properly sized and graded and shall not extend more than two (2) feet above the top of the screen or the uppermost water bearing unit to be monitored in the well annulus, unless otherwise approved by the division.

(e) A filter pack seal of pelletized, medium-grade or coarse-grade crushed bentonite may be placed in the annulus directly above the filter pack. The filter pack seal shall be installed so bridging is prevented, and the filter pack seal can

extend no more than two (2) feet above the filter pack.

(f) Except as provided in subsection (h), the finished well casing shall extend at least two (2) feet above the ground level and, if located in a flood plain, must be at least two (2) feet above the elevation of the regulatory flood or be equipped with a watertight cap. The monitoring well shall be located to protect against surface water ponding, and earthen materials, neat cement, or concrete shall be placed around the well casing to drain surface water from the well.

(g) A monitoring well, located where the casing is susceptible to damage, shall be equipped with a protective outer pipe consisting of a metal casing having a diameter large enough to allow easy access to the well. The protective cover pipe shall be firmly anchored in the ground and be equipped with a locking cap. Additional protective devices, for example, brightly colored posts around the well, are required where the well could be damaged by construction equipment or vehicular traffic.

(h) A monitoring well installed so that the top of the well casing is finished at an elevation below the ground surface shall be equipped with a watertight cap. The top of the well casing shall terminate at a depth no greater than one (1) foot below the ground surface and shall be located in a flush mounted protective cover pipe. The flush mounted protective cover pipe shall include each of the following:

(1) A watertight one (1) piece or continuous welded metal casing at least one (1) foot long and having a nominal diameter at least four (4) inches greater than the nominal diameter of the monitoring well. The casing shall be flanged for greater stability if installed in a location likely to be subject to vehicular traffic.

(2) A concrete ground surface seal, if an impervious surface, for example, concrete or asphalt, is not present. The ground surface seal shall be installed and extend no more than three (3) feet below the ground surface.

(3) A sealed lid which is not more than one-half (1/2) inch higher than the elevation of the ground surface. The sealed lid shall be of a quality to withstand vehicular traffic if installed in a location likely to be subject to vehicular traffic. The lid shall be clearly marked with the words "MONITORING WELL" and also display the words "DO NOT FILL".

(i) A monitoring well installed by the rotary or auger driller method shall have a borehole with a diameter at least two (2) inches greater than the nominal diameter of the casing. Except as provided in subsection (e), the well shall be grouted as follows:

(1) Granular bentonite can be used to grout a monitoring well if:

(A) the diameter of the borehole is four (4) inches or larger than the nominal diameter of the well casing; and

(B) the well is not more than twenty-five (25) feet deep.

(2) Except as provided in subdivision (3), the annulus of the monitoring well shall be pressure grouted with neat cement or a bentonite slurry or be grouted with pelletized, medium-grade, or coarse-grade crushed bentonite from the top of the gravel pack (for a well installed in unconsolidated materials) or the bottom of the well casing (for a well penetrating bedrock) to the ground surface or to within one (1) foot of the ground surface if a flush mounted protective cover pipe is installed if:

(A) the diameter of the borehole is four (4) inches or larger than the nominal diameter of the well casing; and

(B) the well is not more than one hundred (100) feet deep.

(3) The annulus of the monitoring well shall be pressure grouted with neat cement or a bentonite slurry from the top of the gravel pack (for a well installed in unconsolidated materials)

or the bottom of the well casing (for a well penetrating bedrock) to the ground surface or to within one (1) foot of the ground surface if a flush mounted protected cover pipe is installed where either:

(A) the diameter of the borehole is less than four (4) inches larger in diameter than the nominal diameter of the well casing; or

(B) the well is more than one hundred (100) feet deep.

(j) A monitoring well installed by the cable tool method shall be grouted as follows:

(1) The well casing shall be centered in a borehole with a diameter of at least two (2) inches greater than the nominal diameter of the casing to be driven. The borehole shall be dug at least three (3) feet, but no more than five (5) feet, below the ground surface and shall be filled with granular bentonite or a bentonite slurry during the installation of the casing.

(2) Grouting shall be performed as provided under subsection (i) if:

(A) a larger diameter temporary casing is used to install a smaller diameter permanent well casing; or

(B) a larger diameter borehole is drilled to install a smaller diameter well casing.

(k) A monitoring well shall be developed following installation and before water samples are collected. This development shall be accomplished to produce water which is as free as practicable from sediment, drill cuttings, and drilling fluids. If a well is installed to monitor ground water quality, the well shall be adequately developed to present a representative sample of the water quality.

(l) Contaminated drill cuttings, fluids, and surge and wash waters produced in the drilling and development of a monitoring well shall be collected and contained to prevent contamination of the area and to protect persons who might otherwise come in contact with these materials.

(m) Monitoring well construction and development equipment that comes in contact with contaminated water or contaminated geologic materials shall be cleaned with high pressure hot water or steam, using inorganic soap or other suitable solvents, and rinsed thoroughly. Contaminated fluids or wash waters shall be collected and contained so that the result is not contamination of the area or a hazard to individuals who may come in contact with these materials.

310 IAC 16-8-4 Dewatering wells

Sec. 4. (a) This section establishes standards for dewatering wells which are in addition to the general requirements for drilling a well under this article.

(b) A dewatering well shall be equipped with casing having a nominal diameter of at least one and one-fourth (1 1/4) inches. The casing shall be clean and free of grease, oil, or other contaminants that would impact water quality.

(c) Upon installation, a dewatering well must be fitted with a temporary cap which remains in place until pumping equipment is installed. The cap shall be of a type that prevents vermin or other potential contaminants from entering the well.

(d) Earthen materials shall be placed around the well casing to drain surface water away from the dewatering well.

Rule 9. Well Disinfection

310 IAC 16-9-1 Disinfection procedures for drilled wells

Sec. 1. (a) Except as provided in subsection (d), the following procedures shall be used for the disinfection of drilled wells:

(1) The amount of water in the well shall be determined by multiplying the gallons per foot

by the number of feet of water in the well according to the following table:

Diameter of Well in Inches	Gallons Per Foot
2	.16
3	.37
4	.65
5	1.00
6	1.50
8	2.60
10	4.10
12	6.00

(2) At least one hundred (100) parts per million of chlorine concentration in water are required for disinfection. For each one hundred (100) gallons of water in the well, the amount of chlorine liquid or compound shown in the following table shall be used:

Laundry Bleach (5.25% chlorine)	Hypochlorite Granules (70% chlorine)
3 cups	2 ounces

(3) The solution prepared under subdivision (2) shall be poured into the well to ensure the casing walls are wetted before the cover, cap, or seal is installed.

(4) Instead of the applications described in subdivisions (1) through (2), another application of chlorine may be substituted by a water well driller which results in a chlorine concentration of at least one hundred (100) parts per million.

(b) As used in this section, one (1) cup is equivalent to an eight (8) ounce measuring cup.

(c) As used in this section, one (1) ounce is equivalent to one (1) heaping tablespoon of granules.

(d) This section does not apply to a monitoring well or a dewatering well.

310 IAC 16-9-2 Disinfection procedures for bucket wells

Sec. 2. The following procedures shall be used for the disinfection of bucket wells.

(1) The amount of disinfectant required is determined primarily by the amount of water in the well. The following table establishes the amount of chlorine to use for each foot of water in the well:

Diameter of well in feet	3	4	5	6	7	8	10
Amount of 5.25% laundry bleach to use per foot of water (in cups)	1.5	3	4.5	6	9	12	18
Amount of .70% hypochlorite (in cups)	1	2	3	4	6	8	12

(2) To determine the amount of bleach, multiply the amount of disinfectant indicated as determined by the diameter of the well times the number of feet of water in the well.

(3) The amount of bleach determined under subdivision (2) shall be added to approximately ten (10) gallons of water and splashed around the lining or wall of the well. The entire amount of disinfectant must be circulated so that the solution contacts all parts of the well.

(4) The top of the well must be sealed.

(5) Instead of the applications described in this section, another application of chlorine may be substituted which results in a chlorine concentration of 100 parts per million.

Rule 10. Landowner Responsibility for Abandonment and Plugging of Wells

310 IAC 16-10-1 Temporary abandonment of wells

Sec. 1. A well which has not been used for more than three (3) months without being permanently abandoned must be sealed at or above the ground surface by a welded, threaded or mechanically attached water tight cap. The well shall be maintained so that the well does not become a source or channel of groundwater contamination.

310 IAC 16-10-2 Permanent abandonment of wells

Sec. 2. (a) A well abandoned before January 1, 1988, must be sealed at or above the ground surface by a welded, threaded, or mechanically attached watertight cap. The well shall be maintained so the well does not become a source or channel of ground water contamination. A well which poses a hazard to human health must also be plugged under subsection (c). A cased or uncased bucket well or a hand dug well (other than buried slab construction) that was abandoned before January 1, 1988, shall be closed in conformance with one (1) of the following procedures:

(1) Covered with a reinforced concrete slab at least four (4) inches thick and having a diameter larger than the nominal diameter of the borehole or the well casing.

(2) Equipped with a properly reinforced cover constructed of pressure treated lumber, using chromium copper arsenic (CCA) salt, that has dimensions larger than the nominal diameter of the borehole or well casing. The cover shall be protected against the water with roofing or other water repelling materials that are properly maintained to ensure the integrity of the cover. Closure shall not be performed under this subdivision, however, if the cover is in direct contact with ground water or surface water.

(3) Closed as otherwise approved by the division.

(b) A well drilled before January 1, 1988, and abandoned before January 1, 1994, shall be sealed at or above the ground surface by a welded, threaded, or mechanically attached watertight cap. The well shall be maintained so the well does not become a source or channel of ground water contamination. A well which poses a hazard to human health must also be plugged under subsection (c).

(c) A well abandoned after December 31, 1987, shall be plugged with an impervious grouting material to prevent the migration of materials or fluids in the well and the loss of pressure in a confined aquifer.

(d) A well drilled after December 31, 1987, and not equipped with casing must be plugged within seventy-two (72) hours after completion.

(e) This subsection applies as follows to a cased or uncased well abandoned after December 31, 1987:

(1) The plugging material must consist of one (1) or a combination of the following:

(A) Neat cement with not more than five percent (5%) by weight of bentonite additive.

(B) Bentonite slurry (which can include polymers designed to retard swelling).

(C) Pelletized, medium-grade, or coarse-grade crushed bentonite.

(D) Other materials approved by the commission.

(2) The following methods apply:

(A) Cement and bentonite slurries shall be pumped into place in a continuous operation with a grout pipe introducing the plugging material at the bottom of the well and moving the pipe progressively upward as the well is filled.

(B) Plugging materials other than neat cement or bentonite slurry shall be installed in a manner to prevent bridging of the well or borehole. The well or borehole shall be measured periodically throughout the plugging process to ensure that bridging does not occur.

(3) The following procedures apply:

(A) An abandoned well shall be disconnected from the water system. Any substance which may interfere with plugging shall be removed, if practicable.

(B) A well (other than a monitoring well, a dewatering well, or an uncased borehole)

shall be chlorinated before abandonment as provided in 310 IAC 16-9-1.

(4) A cased well shall be plugged as follows:

(A) With neat cement, bentonite slurry, or medium-grade or coarse-grade crushed or pelletized bentonite from the bottom of the well to within two (2) feet below the ground surface, unless otherwise provided by the department.

(B) The well casing shall be severed at least two (2) feet below the ground surface and a cement plug larger in diameter than the borehole shall be constructed over the borehole and covered with natural clay material to the ground surface.

(5) An uncased well (other than a borehole drilled by a bucket rig or a dewatering well governed by subdivision (8) or (9)), shall be filled with natural clay materials, neat cement, bentonite slurry, or medium-grade or coarse-grade crushed or pelletized bentonite from the bottom of the borehole to a depth of no less than twenty-five (25) feet below ground surface. The borehole shall be filled with neat cement, or medium-grade or coarse-grade crushed or pelletized bentonite from a depth no less than twenty-five (25) feet below ground surface to within two (2) feet below ground surface. The remaining borehole shall be filled with natural clay material to ground surface.

(6) A cased or uncased monitoring well shall be plugged from the bottom of the well or borehole to the ground surface with a bentonite slurry or pelletized or coarse-grade crushed bentonite.

(7) A bucket well shall be plugged as follows:

(A) A bucket well installed as buried slab construction shall be filled with gravel from the bottom of the well to within ten (10) feet below the ground surface. Neat cement, bentonite slurry, or pelletized, medium-grade, or coarse-grade crushed bentonite shall be installed in the casing or well pipe from no less than ten (10) feet below the ground surface to within two (2) feet below the ground surface. The well pipe shall be severed at least two (2) feet below the ground surface and covered with a cement plug larger in diameter than the well pipe. The remaining hole shall be filled with natural clay material to the ground surface.

(B) Bucket well construction using casing with an inside diameter of less than twelve (12) inches extending the entire length of the borehole and equipped with a well screen shall be abandoned under subdivision (4)(A).

(C) An uncased borehole drilled by a bucket rig shall be filled with natural clay material from the bottom of the hole to the ground surface. The clay material shall be thoroughly tamped to minimize settling.

(D) For other than buried slab construction, a bucket well shall be filled with gravel from the bottom of the well to at least five (5) feet below ground surface. The top section of the concrete or tile well casing shall be removed to cause the top of the well to terminate below ground surface. The well shall be filled with at least one (1) foot of neat cement, bentonite slurry, or pelletized, medium-grade, or coarse-grade crushed bentonite from at least five (5) feet below ground surface to the top of the well casing. The well casing shall be covered with a cement plug larger in diameter than the borehole. The remaining hole shall be filled with natural clay material to ground surface.

(8) If a dewatering well casing is removed following use, the remaining borehole shall initially be filled with granular, pelletized, medium-grade, or coarse-grade crushed bentonite a minimum of one (1) foot thick. The remainder of the borehole shall be filled with natural earth materials obtained during the drilling process to the ground surface and be thoroughly tamped to minimize settling.

(9) If a dewatering well casing is removed following use and the well site will be excavated as part of the construction project, the remaining borehole shall be filled with natural earth materials obtained during the drilling process to the ground surface and be thoroughly tamped to minimize settling.

(f) The division shall be notified in writing of a well abandonment within thirty (30) days after plugging is completed.

Rule 11. Inspections

310 IAC 16-11-1 Inspections; compliance

Sec. 1. A conservation officer or another representative of the department may observe the installation of a water well or pump and may inspect equipment used to drill a well. Work that does not comply with this article (310 IAC 16) or IC 25-39 must be promptly corrected by the water well driller. Work that is covered contrary to the request of a department representative must, upon request, be uncovered for inspection and replaced by the water well driller.

310 IAC 16-11-2 Inspections by the department of records of a water well driller

Sec. 2. A conservation officer or another representative of the department may, at any reasonable time, inspect any record maintained by a water well driller which is needed to comply with IC 25-39 or this article.

Rule 12. Enforcement

310 IAC 16-12-1 Administrative enforcement

Sec. 1. (a) This rule governs enforcement of IC 25-39 and this article by the department under IC 4-21.5 and 310 IAC 0.6-1.

(b) This rule does not limit the authority to enforce IC 25-39 and this article through any other lawful method.

(c) This rule does not establish a basis for an action against a water well driller by a person other than the department.

310 IAC 16-12-2 Suspension or revocation of a license as a water well driller

Sec. 2. (a) The division may seek to suspend or revoke the license of a water well driller who has done any of the following:

(1) Acted as a well driller without a license in violation of IC 25-39.

(2) Secured a license through error or fraud.

(3) Failed to comply with the requirements set forth in any of the following:

(A) IC 25-39-4-1, IC 25-39-4-2, IC 25-39-4-4, IC 25-39-4-5, or IC 25-39-4-6.

(B) 310 IAC 16-2 through 310 IAC 16-10.

(b) An action under this section is governed by IC 4-21.5-3-6 and shall be initiated by the division with the issuance of a written notice directed to the person who is the subject of the action. The notice shall include the following:

(1) A brief description of the order for suspension or revocation. An order for a license suspension shall not exceed a period of effectiveness which exceeds ninety (90) days.

(2) A declaration that the recipient of the order may seek:

(A) a stay of effectiveness of the suspension or revocation;

(B) review of the suspension or revocation; or

(C) both a stay of effectiveness and review of the suspension or revocation;

by making a written request within eighteen (18) days of issuance addressed to the following:

Director, Division of Hearings
Natural Resources Commission
Indiana Government Center-South
402 West Washington Street, Room W272
Indianapolis, Indiana 46204

(c) An order issued by the division under subsection (b) is effective fifteen (15) days after issuance unless the recipient of the order obtains a stay of effectiveness. This subsection does not preclude the department from issuing, under IC 4-21.5-4, an emergency or other temporary order with respect to the license.

310 IAC 16-12-3 Denial of a new, renewal, or restoration license as a water well driller

Sec. 3. (a) The division may refuse to grant, renew, or restore a license to a person who has done any of the following:

(1) Acted as a well driller without a license in violation of IC 25-39.

(2) Secured a license through error or fraud.

(3) Failed to comply with the requirements set forth in any of the following:

(A) IC 25-39-4-1, IC 25-39-4-2, IC 25-39-4-4, IC 25-39-4-5, or IC 25-39-4-6.

(B) 310 IAC 16-2 through 310 IAC 16-10.

(b) An action under this section is governed by IC 4-21.5-3-5 and shall be initiated by the division with the issuance of a written notice directed to the applicant and to any person who has requested notice under IC 4-21.5-3-5(b)(4). The notice shall include the following:

(1) A brief description of the denial order and the basis for the denial.

(2) A declaration that the recipient of the order may seek administrative review by making a written request within eighteen (18) days of issuance addressed to the following:

Director, Division of Hearings
Natural Resources Commission
Indiana Government Center-South
402 West Washington Street, Room W272
Indianapolis, Indiana 46204

(c) If the division orders the denial of a license renewal, and a timely and sufficient application was made for renewal of the license, the existing license does not expire until the commission has disposed of a proceeding. This subsection does not preclude the department from issuing, under IC 4-21.5-4, an emergency or other temporary order with respect to the license.

310 IAC 16-12-4 Administrative review of a sanction against a water well drilling license

Sec. 4. (a) The commission may consider the factors set forth in this section in conducting administrative review of an order issued by the department under section 2 or 3 of this rule.

(b) Mitigating factors are as follows:

(1) The person against whom action is taken has not previously been adjudicated by the commission or a court to have violated IC 25-39 or this article.

(2) The violation appears to have been unintentional.

(3) The violation was an isolated occurrence.

(4) Contamination is unlikely to have occurred as a result of the violation.

(5) Where a violation has occurred, the person has acted diligently to correct the violation.

(c) Aggravating factors are as follows:

(1) The person against whom action is taken has previously been adjudicated by the commission or a court to have violated IC 25-39 or this article.

(2) The violation appears to have been intentional.

(3) A pattern of violations has occurred.

(4) Significant contamination is likely to have occurred as a result of the violation.
(5) A hazard to human health is likely to have occurred as a result of the violation.

310 IAC 16-12-5 Notice of violation

Sec. 5. (a) The department may issue a complaint for a notice of violation under IC 14-3-3-22 against a person who violates IC 25-39-5. The complaint shall be filed with the division of hearings of the commission and is subject to IC 4-21.5-3-8. The division of hearings shall cause the complaint to be served upon the parties named in the complaint.

(b) The department has the burden of proving any violation alleged in the complaint by a preponderance of the evidence.

(c) A separate notice of violation may be issued or a separate charge imposed for each day a violation occurs.

(d) The person who is the subject of the complaint may establish as an affirmative defense the filing by a prosecuting attorney of a misdemeanor information or infraction complaint based on the same event as that upon which the notice of violation was based. The person has the burden of proving the affirmative defense.

(e) If following a completed proceeding under IC 4-21.5 the commission finds the violation occurred, the commission shall order the person to abate the violation within a reasonable period of time. The abatement period shall not be less than fifteen (15) days. The order shall also specify, that if the violation is not abated within the specified time, the person shall pay a charge that does not exceed the maximum amount that may be assessed by a court for committing the violation as an infraction or misdemeanor.

determination, the department may, upon a verified showing of those acts of the defendant, obtain a temporary restraining order without notice. The order is effective until the cause has been tried and determined.

Sec. 9. (a) The commission shall adopt rules under IC 4-22-2 to implement this article.

(b) The commission may adopt rules under IC 4-22-2 to do the following:

(1) Establish standards for the licensing of dewatering well drillers.

(2) Regulate the drilling of dewatering wells.

(3) Exempt the drilling of a dewatering well from the application of this chapter if the commission determines that application of this chapter is inappropriate.

Sec. 10. Upon written application by the owner of a well or the water well driller, the department shall keep the record of a well confidential for a period of one (1) year and that record is not considered to be a public record.

Sec. 11. This article does not apply to wells drilled:

(1) under or incidental to an activity under IC 13-8 or IC 13-4.1;

(2) for the sole purpose of supplying water for the secondary recovery of petroleum resources, or

(3) for the purpose of evaluating the foundation characteristics of earth materials to support bridges, roadways, buildings, or other engineered structures.

IC 25-39-5. Crimes and Infractions.

Sec. 1. A person who acts as a water well driller without a license in violation of this article commits a Class B misdemeanor.

Sec. 2. A person who fails to keep the records or file the reports required by IC 25-39-4-1 or who knowingly files any report containing false information commits a Class B infraction. The failure to submit records for each water well drilled constitutes a separate infraction.

Sec. 3. A person who knowingly violates a standard established under IC 25-39-4-2 commits a Class B infraction.

Sec. 4. A person who knowingly fails to plug a well in violation of IC 24-39-4-4 commits a Class B infraction.

Sec. 5. A person who knowingly fails to grout a well in violation of IC 25-39-4-5 commits a Class B infraction.

Sec. 6. A person who fails to seal, plug, or cap a well in violation of IC 25-39-4-6 commits a Class C infraction.

Sec. 7. A plumber who installs a well without first registering with the department under IC 25-39-1.5-4 commits a Class B misdemeanor.

IC 25-39-6. IC 25-39-1 IS REPEALED.

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
INDIANA CODE 25-39-1.5

WATER WELL DRILLING CONTRACTORS

IC 25-39-1 Repealed, January 1, 1988.

IC 25-39-1.5 Applicability Provisions.

Sec. 1. For the purposes of this article, the occupation of a licensed water well driller is a regulated occupation under IC 25-1-7-1.

Sec. 2. For the purposes of licensing water well drillers under IC 25-39-3, the department of natural resources is a "board" under IC 25-1-8-1.

Sec. 3. IC 25-39-3 and IC 25-39-4 do not apply to the following:

(1) A person who installs a well that:
  (A) is for personal use; and
  (B) is not greater than one and one-fourth (1¼) inches inside diameter and not greater than twenty-four (24) feet deep.

(2) A plumber who:
  (A) is licensed under IC 25-28.5;
  (B) is registered with the department under section 4 of this chapter; and
  (C) install wells that are not greater than one and one-fourth (1¼) inches inside diameter and not greater than twenty-four (24) feet deep.

Sec. 4. A plumber licensed under IC 25-28.5 must register with the department before the plumber installs a well.

IC 25-39-2 Definitions.

Sec. 1. The definitions in this chapter apply throughout this article.

Sec. 2. "Abandoned well" means a well:

(1) whose original purpose and use have been discontinued for more than a five (5) years; or

(2) that is in such a state of disrepair that using it to obtain ground water is impractical or a health hazard.

Sec. 3. "Annular space" means the space between the exterior of the well casing and the natural formation in a drilled well.

Sec. 4. "Aquifer" means any underground geologic formation (consolidated or unconsolidated) that has the ability to receive, store, and transmit water in amounts sufficient for the satisfaction of any beneficial use.

Sec. 5. "Bentonite clay" means a commercial clay or clay mineral product that has been approved by the commission by rule adopted under IC 4-22-2.

Sec. 6. "Casing" means a pipe installed to prevent unwanted solids, liquids, or gases from entering the interior of a well.

Sec. 7. "Commission" refers to the natural resources commission.

Sec. 8. "Department" refers to the department of natural resources.

Sec. 9. "Director" refers to the director of the department of the natural resources.

Sec. 10. "Ground water" means water occurring beneath the surface of the ground regardless of location or form.

Sec. 11. "Grouting" means the process of sealing the annular space in a well.

Sec. 12. "License" refers to a water well driller's license issued by the department under this chapter.

Sec. 13. "Neat cement" means a mixture of ninety-four (94) pounds of cement and no more than six (6) gallons of clean water. Additives designed to increase fluidity may not exceed five percent (5%) of the total mixture.

Sec. 14. "Plugged" means the insertion of a material in a well that prevents the migration of gas, liquid, or solid material up or down the well.

Sec. 15. "Water well driller" means a person who operates well drilling or driving equipment or engages in the drilling or driving of wells.

Sec. 16. "Wells" means a hole drilled or driven to:

(1) obtain geologic information on aquifers;

(2) monitor the quality or quantity of ground water;

(3) obtain ground water; or

(4) utilize the geothermal properties of earth formations.

IC 25-39-3. Licensing of Water Well Drillers.

Sec. 1. (a) An individual may not be a water well driller without a license.

(b) The department shall issue a license to each individual who applies and qualifies for a license under this chapter.

(c) The license of the licensee operating well drilling equipment shall be carried by the licensee and presented for inspection by a representative of the department upon request.

(d) Every license expires on December 31 of the year for which it was issued.

Sec. 2. (a) An application for a license must be made on a form prescribed by the commission in rules adopted under IC 4-22-2. The purpose of the form is to identify the applicant and obtain information to determine if the applicant is qualified to be licensed.

(b) An application for an original license or a license renewal must be accompanied by a license fee of one hundred dollars ($100).

Sec. 3. (a) To qualify for an original license an individual must:

(1) be at least eighteen (18) years of age;

(2) furnish evidence from three (3) references, two (2) of whom are water well drillers or licensed plumbing contractors familiar with the applicant's work experience and professional competency; and

(3) have successfully completed a competency examination prepared and administered by the department.

(b) The competency examination shall be administered at least two (2) times every calendar year.

(c) The fee to take the competency examination shall be set by the director under IC 25-1-8. This fee is non-refundable and must be paid each time an applicant applies to take the examination.

Sec. 4. (a) In consultation with the Indiana Well Drilling Contractors Association, the department shall prepare one (1) or more competency examinations to determine if an applicant for a license is qualified to be a water well driller.

(b) The competency examination must include questions to determine if the applicant for a license has adequate knowledge and expertise concerning the following:

(1) Placement of wells.
(2) Well drilling procedures.
(3) Operations of well drilling equipment.
(4) Contamination precautions.
(5) Installation of well casing.
(6) Well grouting procedures.
(7) Well screen design and installation.
(8) Pitless adapter units.
(9) Installation of pumping apparatus.
(10) Well disinfection.
(11) Sealing abandoned wells.
(12) Ground water occurrence.
(13) Aquifer characteristics.
(14) Drawdown requirements and limitations.
(15) Depth considerations.
(16) Methods of measuring well yield.
(17) The requirements of this chapter and other laws relating to wells.
(18) Other accepted standards relating to the drilling, operation, and abandonment of wells.

IC 25-39-4. Regulation of Water Well Drilling.

Sec. 1. (a) Each water well driller shall keep accurate records for each well drilled. The record for each well must contain the following information.

(1) The location of the well.
(2) The depth and diameter of the well.
(3) The date the contractor completed the well.
(4) The character and thickness of materials or formations drilled.
(5) The static water level and performance data of the well.
(6) Any other information required by rule.

(b) Each water well driller shall, within thirty (30) days after the completion of a well, forward a copy of the record of the well to the department on forms prescribed or approved by the department.

Sec. 2. (a) The commission shall, by rule, establish standards for well siting, construction, and operation. The standards must address the following:

(1) Placement of wells.
(2) Well drilling procedures.
(3) Operation of well drilling equipment.
(4) Contamination precaution.
(5) Well casing specification and installation.
(6) Well grouting procedures.
(7) Well screen design and installation.
(8) Pitless adapter units.
(9) Installation of pumping apparatus.
(10) Well disinfection techniques.

(11) Sealing and plugging abandoned wells.

(12) Other generally accepted standards relating to the drilling, operation, or abandonment of wells.

(b) A well that is drilled after December 31, 1987, must be drilled in compliance with the rules adopted under this section.

Sec. 3. The commission may not establish standards under section 2 of this chapter that prohibit the use of well casing that is at least two (2) inches in diameter.

Sec. 4. A well that is drilled after December 31, 1987, and not equipped with casing must be plugged by the driller within seventy-two (72) hours after drilling is completed.

Sec. 5. A well that is drilled after December 31, 1987, and equipped with casing must have the annular space grouting with neat cement, bentonite clay, or another material that has been approved by the commission by the driller when the well is completed.

Sec. 6. (a) A well that was abandoned before January 1, 1988, must be sealed by the use of a welded or threaded cap, or in accordance with rules adopted by the commission under IC 4-22-2. If the director determines that a well described in this subsection poses a hazard to human health, the well shall be plugged in accordance with the rules adopted by the commission under IC 4-22-2.

(b) The owner of land upon which is situated a well that is abandoned after December 31, 1987, must have the well plugged by a water well driller within one (1) year after it is abandoned.

(c) A well that has not been used for more than three (3) months, but has not been abandoned, must be sealed at or above the land surface with a welded or threaded cap, or in accordance with rules adopted by the commission under IC 4-22-2.

Sec. 7. (a) Under IC 4-21.5-3-6, the director may suspend or revoke the license of a water well driller who has done any of the following:

(1) Acted as a well driller without a license in violation of this article.

(2) Secured a license through error or fraud.

(3) Failed to comply with any of the requirements of sections 1, 2, 4, 5, and 6 of this chapter.

(b) Under IC 4-21.5-3-5, the director may refuse to grant, renew, or restore a license to a person who has done any of the following:

(1) Acted as a well driller without a license in violation of this article.

(2) Secured a license through error or fraud.

(3) Failed to comply with any of the requirements of sections 1, 2, 4, 5, and 6 of this chapter.

Sec. 8. (a) The department may initiate injunctive proceedings in the appropriate court against a person who acts as a water well driller without a license or while the person's license is suspended. The department may not be compelled to give bond in such a cause.

(b) After an action has been filed and notice has been given, all matters involved in the action shall be held in abeyance until the action has been tried and determined.

(c) If a defendant continues to violate this article after notice of the action has been given but before trial and

determination, the department may, upon a verified showing of those acts of the defendant, obtain a temporary restraining order without notice. The order is effective until the cause has been tried and determined.

Sec. 9. (a) The commission shall adopt rules under IC 4-22-2 to implement this article.

(b) The commission may adopt rules under IC 4-22-2 to do the following:

(1) Establish standards for the licensing of dewatering well drillers.

(2) Regulate the drilling of dewatering wells.

(3) Exempt the drilling of a dewatering well from the application of this chapter if the commission determines that application of this chapter is inappropriate.

Sec. 10. Upon written application by the owner of a well or the water well driller, the department shall keep the record of a well confidential for a period of one (1) year and that record is not considered to be a public record.

Sec. 11. This article does not apply to wells drilled:

(1) under or incidental to an activity under IC 13-8 or IC 13-4.1;

(2) for the sole purpose of supplying water for the secondary recovery of petroleum resources, or

(3) for the purpose of evaluating the foundation characteristics of earth materials to support bridges, roadways, buildings, or other engineered structures.

IC 25-39-5. Crimes and Infractions.

Sec. 1. A person who acts as a water well driller without a license in violation of this article commits a Class B misdemeanor.

Sec. 2. A person who fails to keep the records or file the reports required by IC 25-39-4-1 or who knowingly files any report containing false information commits a Class B infraction. The failure to submit records for each water well drilled constitutes a separate infraction.

Sec. 3. A person who knowingly violates a standard established under IC 25-39-4-2 commits a Class B infraction.

Sec. 4. A person who knowingly fails to plug a well in violation of IC 24-39-4-4 commits a Class B infraction.

Sec. 5. A person who knowingly fails to grout a well in violation of IC 25-39-4-5 commits a Class B infraction.

Sec. 6. A person who fails to seal, plug, or cap a well in violation of IC 25-39-4-6 commits a Class C infraction.

Sec. 7. A plumber who installs a well without first registering with the department under IC 25-39-1.5-4 commits a Class B misdemeanor.

IC 25-39-6. IC 25-39-1 IS REPEALED.

EXHIBIT O

ELKHART MUNICIPAL WATER UTILITY
Elkhart, Indiana

Schedule of Approved Rates and Charges

Metered Rates Per 100 Cubic Feet

CCF	Monthly Rates	CCF	Bi-Monthly Rates
First 40 X	$1.04	First 80	$1.04
Next 740	0.80	Next 1,480	0.80
Next 680	0.64	Next 1,360	0.64
Over 1,460	0.54	Over 2,920	0.54

Service Charge

Each user is subject to the following service charge per month which is included within the minimum or is added to the volume charge in excess of a minimum user.

Meter Size	Monthly Rates
5/8 inch	$1.60
3/4	1.75
1	2.15
1 1/2	3.27
2	4.83
3	9.31
4	15.59
6	33.51
8	58.59

Minimum Charge

Each user shall pay a minimum charge according to the following meter size for which the user will be entitled to the quantity of water shown for each month.

Meter Size	Water Allowance CCF	Monthly Charge
5/8 inch	4	$5.76
3/4	6	7.99
1	10	12.55
1 1/2	20	24.07
2	32	38.11
3	60	66.91
4	100	105.19
6	200	203.11
8	320	324.19

EXHIBIT O

ELKHART MUNICIPAL WATER UTILITY
Elkhart, Indiana

Schedule of Approved Rates and Charges

Municipal and Private Fire Hydrants

	Annual Charge	Monthly Charge
Per Hydrant	$239.63	$19.97

Fire Protection Lines Service Size	Annual Charge	Monthly Charge
2"	$26.36	$2.20
4"	105.44	8.79
6"	239.63	19.97
8"	426.55	35.55
10"	666.18	55.52
12"	958.54	79.88

Delinqent Charge

All billings not paid within 17 days of the billing date are subject to a late payment charge of 10% on the first $3.00 and 3% of the balance over $3.00.

Temporary Users

Water furnished to temporary users, such as contractors, etc. shall be charged on the basis of the metered rate as metered or estimated by the water works manager.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 240-4878-1

Job Description: 39611-40 HIMCO

For:
Conestoga-Rovers & Associates, Inc.
6520 Corporate Drive
Indianapolis, IN 46278

Attention: Mr. Steve Day

Approved for release.
Amy L McCormick
Project Manager II
10/31/2011 12:06 PM

Amy L McCormick
Project Manager II
amy.mccormick@testamericainc.com
10/31/2011

cc: EDD CRA
CRA Tracking CRA Tracking

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager who has signed this report.

TestAmerica Laboratories, Inc.
TestAmerica North Canton 4101 Shuffel Street NW, North Canton, OH 44720
Tel (330) 497-9396 Fax (330) 497-0772 www.testamericainc.com

CASE NARRATIVE

Client: Conestoga-Rovers & Associates, Inc.

Project: 39611-40 HIMCO

Report Number: 240-4878-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 10/14/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 4.0 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples GW-WT124-101311 (240-4878-1), TRIP BLANK-101311-001 (240-4878-2) and GW-WT123-101311 (240-4878-3) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 10/26/2011.

No difficulties were encountered during the VOCs analyses.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
Samples GW-WT124-101311 (240-4878-1) and GW-WT123-101311 (240-4878-3) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 10/19/2011 and analyzed on 10/21/2011.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 19683.

No other difficulties were encountered during the SVOC analyses.

All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)
Samples GW-WT124-101311 (240-4878-1) and GW-WT123-101311 (240-4878-3) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 10/24/2011 and analyzed on 10/25/2011.

Barium, Calcium and Manganese were detected in method blank MB 240-20267/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Refer to the QC report for details.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples GW-WT124-101311 (240-4878-1) and GW-WT123-101311 (240-4878-3) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 10/24/2011 and analyzed on 10/25/2011.

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples GW-WT124-101311 (240-4878-1) and GW-WT123-101311 (240-4878-3) were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared on 10/20/2011 and analyzed on 10/21/2011.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

ANIONS

Samples GW-WT124-101311 (240-4878-1) and GW-WT123-101311 (240-4878-3) were analyzed for anions in accordance with EPA Method 300.0. The samples were analyzed on 10/21/2011, 10/22/2011 and 10/24/2011.

Sample GW-WT123-101311 (240-4878-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Refer to the QC report for details.

No other difficulties were encountered during the anions analyses.

All other quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
240-4878-1	**GW-WT124-101311**					
Bis(2-ethylhexyl) phthalate		1.4	J	2.3	ug/L	8270C
Chloride		42		1.0	mg/L	300.0
Sulfate		15		1.0	mg/L	300.0
Total Recoverable						
Barium		20	J B	200	ug/L	6010B
Calcium		56000	B	5000	ug/L	6010B
Iron		790		100	ug/L	6010B
Manganese		39	B	15	ug/L	6010B
Sodium		27000		5000	ug/L	6010B
Aluminum		110		50	ug/L	6020
Arsenic		0.99	J	5.0	ug/L	6020
240-4878-3	**GW-WT123-101311**					
Bis(2-ethylhexyl) phthalate		0.93	J	2.2	ug/L	8270C
Chloride		26		1.0	mg/L	300.0
Sulfate		670		5.0	mg/L	300.0
Total Recoverable						
Barium		49	J B	200	ug/L	6010B
Calcium		300000	B	5000	ug/L	6010B
Iron		310		100	ug/L	6010B
Manganese		53	B	15	ug/L	6010B
Sodium		12000		5000	ug/L	6010B
Aluminum		130		50	ug/L	6020
Arsenic		1.3	J	5.0	ug/L	6020

METHOD SUMMARY

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Description	Lab Location	Method	Preparation Method
Matrix Water			
Volatile Organic Compounds (GC/MS)	TAL NC	SW846 8260B	
Purge and Trap	TAL NC		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270C	
Liquid-Liquid Extraction (Continuous)			SW846 3520C
Metals (ICP)	TAL NC	SW846 6010B	
Preparation, Total Recoverable or Dissolved Metals			SW846 3005A
Metals (ICP/MS)	TAL NC	SW846 6020	
Preparation, Total Recoverable or Dissolved Metals			SW846 3005A
Mercury (CVAA)	TAL NC	SW846 7470A	
Preparation, Mercury			SW846 7470A
Anions, Ion Chromatography	TAL NC	MCAWW 300.0	

Lab References:

TAL NC = TestAmerica North Canton

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Method	Analyst	Analyst ID
SW846 8260B	Quayle, Rick	RQ
SW846 8270C	Hula, Tom	TH
SW846 6010B	Musselman, Natalie J	NJM
SW846 6020	Davies, Brian	BD
SW846 7470A	Sutherland, Aaron	AS
MCAWW 300.0	Grossman, Lucas	LG

SAMPLE SUMMARY

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
240-4878-1	GW-WT124-101311	Water	10/13/2011 1352	10/14/2011 0930
240-4878-2TB	TRIP BLANK-101311-001	Water	10/13/2011 1400	10/14/2011 0930
240-4878-3	GW-WT123-101311	Water	10/13/2011 1523	10/14/2011 0930

SAMPLE RESULTS

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Client Sample ID: **GW-WT124-101311**

Lab Sample ID: 240-4878-1 Date Sampled: 10/13/2011 1352
Client Matrix: Water Date Received: 10/14/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-20655	Instrument ID:	A3UX10
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXX6517.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/26/2011 1651			Final Weight/Volume:	5 mL
Prep Date:	10/26/2011 1651				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1-Dichloroethane	ND		0.15	1.0
Benzene	ND		0.13	1.0
Carbon disulfide	ND		0.13	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
Vinyl chloride	ND		0.22	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		63 - 129
4-Bromofluorobenzene (Surr)	107		66 - 117
Toluene-d8 (Surr)	106		74 - 115
Dibromofluoromethane (Surr)	91		75 - 121

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4878-1

Client Sample ID: **TRIP BLANK-101311-001**

Lab Sample ID: 240-4878-2TB
Client Matrix: Water

Date Sampled: 10/13/2011 1400
Date Received: 10/14/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-20655	Instrument ID:	A3UX10
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXX6506.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/26/2011 1236			Final Weight/Volume:	5 mL
Prep Date:	10/26/2011 1236				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1-Dichloroethane	ND		0.15	1.0
Benzene	ND		0.13	1.0
Carbon disulfide	ND		0.13	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
Vinyl chloride	ND		0.22	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		63 - 129
4-Bromofluorobenzene (Surr)	105		66 - 117
Toluene-d8 (Surr)	106		74 - 115
Dibromofluoromethane (Surr)	87		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Client Sample ID: **GW-WT123-101311**

Lab Sample ID: 240-4878-3 Date Sampled: 10/13/2011 1523
Client Matrix: Water Date Received: 10/14/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	240-20655	Instrument ID:	A3UX10
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	UXX6518.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	10/26/2011 1712			Final Weight/Volume:	5 mL
Prep Date:	10/26/2011 1712				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1-Dichloroethane	ND		0.15	1.0
Benzene	ND		0.13	1.0
Carbon disulfide	ND		0.13	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
Vinyl chloride	ND		0.22	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		63 - 129
4-Bromofluorobenzene (Surr)	104		66 - 117
Toluene-d8 (Surr)	106		74 - 115
Dibromofluoromethane (Surr)	89		75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Client Sample ID: **GW-WT124-101311**

Lab Sample ID: 240-4878-1 Date Sampled: 10/13/2011 1352
Client Matrix: Water Date Received: 10/14/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	240-20087	Instrument ID:	A4AG2
Prep Method:	3520C	Prep Batch:	240-19683	Lab File ID:	1021030.D
Dilution:	1.0			Initial Weight/Volume:	880 mL
Analysis Date:	10/21/2011 1925			Final Weight/Volume:	2.00 mL
Prep Date:	10/19/2011 0759			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Bis(2-ethylhexyl) phthalate	1.4	J	0.91	2.3

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	58		28 - 110
2-Fluorophenol (Surr)	64		10 - 110
2,4,6-Tribromophenol (Surr)	57		22 - 120
Nitrobenzene-d5 (Surr)	60		27 - 111
Phenol-d5 (Surr)	67		10 - 110
Terphenyl-d14 (Surr)	77		37 - 119

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Client Sample ID: **GW-WT123-101311**

Lab Sample ID: 240-4878-3 Date Sampled: 10/13/2011 1523
Client Matrix: Water Date Received: 10/14/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	240-20087	Instrument ID:	A4AG2
Prep Method:	3520C	Prep Batch:	240-19683	Lab File ID:	1021031.D
Dilution:	1.0			Initial Weight/Volume:	890 mL
Analysis Date:	10/21/2011 1942			Final Weight/Volume:	2.00 mL
Prep Date:	10/19/2011 0759			Injection Volume:	1 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Bis(2-ethylhexyl) phthalate	0.93	J	0.90	2.2

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	48		28 - 110
2-Fluorophenol (Surr)	57		10 - 110
2,4,6-Tribromophenol (Surr)	46		22 - 120
Nitrobenzene-d5 (Surr)	54		27 - 111
Phenol-d5 (Surr)	53		10 - 110
Terphenyl-d14 (Surr)	66		37 - 119

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Client Sample ID: **GW-WT124-101311**

Lab Sample ID: 240-4878-1 Date Sampled: 10/13/2011 1352
Client Matrix: Water Date Received: 10/14/2011 0930

6010B Metals (ICP)-Total Recoverable

Analysis Method:	6010B	Analysis Batch:	240-20590	Instrument ID:	I5
Prep Method:	3005A	Prep Batch:	240-20267	Lab File ID:	I51025A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/25/2011 1547			Final Weight/Volume:	50 mL
Prep Date:	10/24/2011 0850				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Barium	20	J B	0.67	200
Beryllium	ND		0.46	5.0
Calcium	56000	B	130	5000
Iron	790		81	100
Manganese	39	B	0.41	15
Sodium	27000		590	5000
Lead	ND		1.9	3.0

6020 Metals (ICP/MS)-Total Recoverable

Analysis Method:	6020	Analysis Batch:	240-20559	Instrument ID:	I8
Prep Method:	3005A	Prep Batch:	240-20267	Lab File ID:	I81025A.csv
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/25/2011 1425			Final Weight/Volume:	50 mL
Prep Date:	10/24/2011 0850				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aluminum	110		19	50
Arsenic	0.99	J	0.40	5.0

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	240-20140	Instrument ID:	H1
Prep Method:	7470A	Prep Batch:	240-19989	Lab File ID:	HG11021A.PRN
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	10/21/2011 1652			Final Weight/Volume:	100 mL
Prep Date:	10/20/2011 1515				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.12	0.20

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Client Sample ID: **GW-WT123-101311**

Lab Sample ID: 240-4878-3 Date Sampled: 10/13/2011 1523
Client Matrix: Water Date Received: 10/14/2011 0930

6010B Metals (ICP)-Total Recoverable

Analysis Method:	6010B	Analysis Batch:	240-20590	Instrument ID:	I5
Prep Method:	3005A	Prep Batch:	240-20267	Lab File ID:	I51025A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/25/2011 1553			Final Weight/Volume:	50 mL
Prep Date:	10/24/2011 0850				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Barium	49	J B	0.67	200
Beryllium	ND		0.46	5.0
Calcium	300000	B	130	5000
Iron	310		81	100
Manganese	53	B	0.41	15
Sodium	12000		590	5000
Lead	ND		1.9	3.0

6020 Metals (ICP/MS)-Total Recoverable

Analysis Method:	6020	Analysis Batch:	240-20559	Instrument ID:	I8
Prep Method:	3005A	Prep Batch:	240-20267	Lab File ID:	I81025A.csv
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	10/25/2011 1430			Final Weight/Volume:	50 mL
Prep Date:	10/24/2011 0850				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aluminum	130		19	50
Arsenic	1.3	J	0.40	5.0

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	240-20140	Instrument ID:	H1
Prep Method:	7470A	Prep Batch:	240-19989	Lab File ID:	HG11021A.PRN
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	10/21/2011 1653			Final Weight/Volume:	100 mL
Prep Date:	10/20/2011 1515				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Mercury	ND		0.12	0.20

General Chemistry

Client Sample ID: **GW-WT124-101311**

Lab Sample ID: 240-4878-1 Date Sampled: 10/13/2011 1352

Client Matrix: Water Date Received: 10/14/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chloride	42		mg/L	0.10	1.0	1.0	300.0
Analysis Batch: 240-20149	Analysis Date: 10/21/2011 2344						
Sulfate	15		mg/L	0.12	1.0	1.0	300.0
Analysis Batch: 240-20149	Analysis Date: 10/21/2011 2344						

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

General Chemistry

Client Sample ID: **GW-WT123-101311**

Lab Sample ID: 240-4878-3 Date Sampled: 10/13/2011 1523

Client Matrix: Water Date Received: 10/14/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Chloride	26		mg/L	0.10	1.0	1.0	300.0
	Analysis Batch: 240-20149	Analysis Date: 10/22/2011 0019					
Sulfate	670		mg/L	0.60	5.0	5.0	300.0
	Analysis Batch: 240-20277	Analysis Date: 10/24/2011 1358					

DATA REPORTING QUALIFIERS

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:240-20655					
LCS 240-20655/4	Lab Control Sample	T	Water	8260B	
MB 240-20655/5	Method Blank	T	Water	8260B	
240-4878-1	GW-WT124-101311	T	Water	8260B	
240-4878-2TB	TRIP BLANK-101311-001	T	Water	8260B	
240-4878-3	GW-WT123-101311	T	Water	8260B	

Report Basis
T = Total

GC/MS Semi VOA					
Prep Batch: 240-19683					
LCS 240-19683/2-A	Lab Control Sample	T	Water	3520C	
MB 240-19683/1-A	Method Blank	T	Water	3520C	
240-4878-1	GW-WT124-101311	T	Water	3520C	
240-4878-3	GW-WT123-101311	T	Water	3520C	
Analysis Batch:240-20087					
LCS 240-19683/2-A	Lab Control Sample	T	Water	8270C	240-19683
MB 240-19683/1-A	Method Blank	T	Water	8270C	240-19683
240-4878-1	GW-WT124-101311	T	Water	8270C	240-19683
240-4878-3	GW-WT123-101311	T	Water	8270C	240-19683

Report Basis
T = Total

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4878-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 240-19989					
LCS 240-19989/2-A	Lab Control Sample	T	Water	7470A	
MB 240-19989/1-A	Method Blank	T	Water	7470A	
240-4878-1	GW-WT124-101311	T	Water	7470A	
240-4878-3	GW-WT123-101311	T	Water	7470A	
Analysis Batch:240-20140					
LCS 240-19989/2-A	Lab Control Sample	T	Water	7470A	240-19989
MB 240-19989/1-A	Method Blank	T	Water	7470A	240-19989
240-4878-1	GW-WT124-101311	T	Water	7470A	240-19989
240-4878-3	GW-WT123-101311	T	Water	7470A	240-19989
Prep Batch: 240-20267					
LCS 240-20267/2-A	Lab Control Sample	R	Water	3005A	
LCS 240-20267/3-A	Lab Control Sample	R	Water	3005A	
MB 240-20267/1-A	Method Blank	R	Water	3005A	
240-4878-1	GW-WT124-101311	R	Water	3005A	
240-4878-3	GW-WT123-101311	R	Water	3005A	
Analysis Batch:240-20559					
LCS 240-20267/3-A	Lab Control Sample	R	Water	6020	240-20267
MB 240-20267/1-A	Method Blank	R	Water	6020	240-20267
240-4878-1	GW-WT124-101311	R	Water	6020	240-20267
240-4878-3	GW-WT123-101311	R	Water	6020	240-20267
Analysis Batch:240-20590					
LCS 240-20267/2-A	Lab Control Sample	R	Water	6010B	240-20267
MB 240-20267/1-A	Method Blank	R	Water	6010B	240-20267
240-4878-1	GW-WT124-101311	R	Water	6010B	240-20267
240-4878-3	GW-WT123-101311	R	Water	6010B	240-20267

Report Basis

R = Total Recoverable

T = Total

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4878-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:240-20149					
LCS 240-20149/30	Lab Control Sample	T	Water	300.0	
MB 240-20149/29	Method Blank	T	Water	300.0	
240-4878-1	GW-WT124-101311	T	Water	300.0	
240-4878-1MS	Matrix Spike	T	Water	300.0	
240-4878-3	GW-WT123-101311	T	Water	300.0	
Analysis Batch:240-20277					
LCS 240-20277/4	Lab Control Sample	T	Water	300.0	
MB 240-20277/3	Method Blank	T	Water	300.0	
240-4878-3	GW-WT123-101311	T	Water	300.0	

Report Basis
T = Total

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4878-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	TOL %Rec	DBFM %Rec
240-4878-1	GW-WT124-101311	100	107	106	91
240-4878-2	TRIP BLANK-101311-001	100	105	106	87
240-4878-3	GW-WT123-101311	100	104	106	89
MB 240-20655/5		97	103	104	86
LCS 240-20655/4		94	113	110	87

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	63-129
BFB = 4-Bromofluorobenzene (Surr)	66-117
TOL = Toluene-d8 (Surr)	74-115
DBFM = Dibromofluoromethane (Surr)	75-121

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4878-1

Surrogate Recovery Report

8270C Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	TBP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec
240-4878-1	GW-WT124-101311	58	64	57	60	67	77
240-4878-3	GW-WT123-101311	48	57	46	54	53	66
MB 240-19683/1-A		65	75	53	66	74	87
LCS 240-19683/2-A		69	74	76	67	76	97

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl (Surr)	28-110
2FP = 2-Fluorophenol (Surr)	10-110
TBP = 2,4,6-Tribromophenol (Surr)	22-120
NBZ = Nitrobenzene-d5 (Surr)	27-111
PHL = Phenol-d5 (Surr)	10-110
TPH = Terphenyl-d14 (Surr)	37-119

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4878-1

Method Blank - Batch: 240-20655

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 240-20655/5	Analysis Batch:	240-20655	Instrument ID:	A3UX10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXX6504.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	10/26/2011 1154	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	10/26/2011 1154				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
1,1-Dichloroethane	ND		0.15	1.0
Benzene	ND		0.13	1.0
Carbon disulfide	ND		0.13	1.0
cis-1,2-Dichloroethene	ND		0.17	1.0
Vinyl chloride	ND		0.22	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	63 - 129
4-Bromofluorobenzene (Surr)	103	66 - 117
Toluene-d8 (Surr)	104	74 - 115
Dibromofluoromethane (Surr)	86	75 - 121

Lab Control Sample - Batch: 240-20655

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 240-20655/4	Analysis Batch:	240-20655	Instrument ID:	A3UX10
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	UXX6505.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	10/26/2011 1215	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	10/26/2011 1215				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1-Dichloroethane	10.0	10.3	103	82 - 115	
Benzene	10.0	10.1	101	83 - 112	
Carbon disulfide	10.0	9.69	97	62 - 142	
cis-1,2-Dichloroethene	10.0	9.11	91	80 - 113	
Vinyl chloride	10.0	8.86	89	53 - 127	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94	63 - 129
4-Bromofluorobenzene (Surr)	113	66 - 117
Toluene-d8 (Surr)	110	74 - 115
Dibromofluoromethane (Surr)	87	75 - 121

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Method Blank - Batch: 240-19683 **Method: 8270C**
Preparation: 3520C

Lab Sample ID:	MB 240-19683/1-A	Analysis Batch:	240-20087	Instrument ID:	A4AG2
Client Matrix:	Water	Prep Batch:	240-19683	Lab File ID:	1021004.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	10/21/2011 1213	Units:	ug/L	Final Weight/Volume:	2.00 mL
Prep Date:	10/19/2011 0759			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Bis(2-ethylhexyl) phthalate	ND		0.80	2.0

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	65	28 - 110
2-Fluorophenol (Surr)	75	10 - 110
2,4,6-Tribromophenol (Surr)	53	22 - 120
Nitrobenzene-d5 (Surr)	66	27 - 111
Phenol-d5 (Surr)	74	10 - 110
Terphenyl-d14 (Surr)	87	37 - 119

Lab Control Sample - Batch: 240-19683 **Method: 8270C**
Preparation: 3520C

Lab Sample ID:	LCS 240-19683/2-A	Analysis Batch:	240-20087	Instrument ID:	A4AG2
Client Matrix:	Water	Prep Batch:	240-19683	Lab File ID:	1021005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	10/21/2011 1230	Units:	ug/L	Final Weight/Volume:	2.00 mL
Prep Date:	10/19/2011 0759			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bis(2-ethylhexyl) phthalate	20.0	18.9	95	36 - 163	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	69	28 - 110
2-Fluorophenol (Surr)	74	10 - 110
2,4,6-Tribromophenol (Surr)	76	22 - 120
Nitrobenzene-d5 (Surr)	67	27 - 111
Phenol-d5 (Surr)	76	10 - 110
Terphenyl-d14 (Surr)	97	37 - 119

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4878-1

Method Blank - Batch: 240-20267

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID:	MB 240-20267/1-A	Analysis Batch:	240-20590	Instrument ID:	I5
Client Matrix:	Water	Prep Batch:	240-20267	Lab File ID:	I51025A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/25/2011 1450	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	10/24/2011 0850				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Barium	1.47	J	0.67	200
Beryllium	ND		0.46	5.0
Calcium	579	J	130	5000
Iron	ND		81	100
Manganese	1.05	J	0.41	15
Sodium	ND		590	5000
Lead	ND		1.9	3.0

Lab Control Sample - Batch: 240-20267

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID:	LCS 240-20267/2-A	Analysis Batch:	240-20590	Instrument ID:	I5
Client Matrix:	Water	Prep Batch:	240-20267	Lab File ID:	I51025A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/25/2011 1456	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	10/24/2011 0850				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Barium	2000	2040	102	80 - 120	
Beryllium	50.0	51.6	103	80 - 120	
Calcium	50000	50400	101	80 - 120	
Iron	1000	1060	106	80 - 120	
Manganese	500	505	101	80 - 120	
Sodium	50000	49700	99	80 - 120	
Lead	500	504	101	80 - 120	

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Method Blank - Batch: 240-20267

Method: 6020
Preparation: 3005A
Total Recoverable

Lab Sample ID:	MB 240-20267/1-A	Analysis Batch:	240-20559	Instrument ID:	I8
Client Matrix:	Water	Prep Batch:	240-20267	Lab File ID:	I81025A.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/25/2011 1323	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	10/24/2011 0850				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		19	50
Arsenic	ND		0.40	5.0

Lab Control Sample - Batch: 240-20267

Method: 6020
Preparation: 3005A
Total Recoverable

Lab Sample ID:	LCS 240-20267/3-A	Analysis Batch:	240-20559	Instrument ID:	I8
Client Matrix:	Water	Prep Batch:	240-20267	Lab File ID:	I81025A.csv
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	10/25/2011 1328	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	10/24/2011 0850				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	10000	9130	91	80 - 120	
Arsenic	1000	918	92	80 - 120	

Client: Conestoga-Rovers & Associates, Inc. Job Number: 240-4878-1

Method Blank - Batch: 240-19989

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 240-19989/1-A	Analysis Batch:	240-20140	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-19989	Lab File ID:	HG11021A.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	10/21/2011 1631	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	10/20/2011 1515				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.12	0.20

Lab Control Sample - Batch: 240-19989

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 240-19989/2-A	Analysis Batch:	240-20140	Instrument ID:	H1
Client Matrix:	Water	Prep Batch:	240-19989	Lab File ID:	HG11021A.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	10/21/2011 1633	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	10/20/2011 1515				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	5.00	4.78	96	81 - 123	

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4878-1

Method Blank - Batch: 240-20149

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 240-20149/29	Analysis Batch:	240-20149	Instrument ID:	GARFUNKEL
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	29240-0004550-029.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	10/21/2011 2142	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chloride	ND		0.10	1.0
Sulfate	ND		0.12	1.0

Lab Control Sample - Batch: 240-20149

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 240-20149/30	Analysis Batch:	240-20149	Instrument ID:	GARFUNKEL
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	30240-0004550-030.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	10/21/2011 2200	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	50.0	49.7	99	90 - 110	
Sulfate	50.0	49.3	99	90 - 110	

Matrix Spike - Batch: 240-20149

Method: 300.0
Preparation: N/A

Lab Sample ID:	240-4878-1	Analysis Batch:	240-20149	Instrument ID:	GARFUNKEL
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	37240-0004550-037.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	10/22/2011 0001	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				25 uL
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	42	50.0	98.7	114	80 - 120	
Sulfate	15	50.0	69.8	109	80 - 120	

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4878-1

Method Blank - Batch: 240-20277

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 240-20277/3	Analysis Batch:	240-20277	Instrument ID:	GARFUNKEL
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	3240-0004595-003.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	10/24/2011 1012	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chloride	ND		0.10	1.0
Sulfate	ND		0.12	1.0

Lab Control Sample - Batch: 240-20277

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 240-20277/4	Analysis Batch:	240-20277	Instrument ID:	GARFUNKEL
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	4240-0004595-004.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	10/24/2011 1029	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride	50.0	49.6	99	90 - 110	
Sulfate	50.0	49.4	99	90 - 110	

CONESTOGA-ROVERS & ASSOCIATES

6520 Corporate Drive
Indianapolis, Indiana 46278
(317) 291-7007 phone
(317) 328-2666 fax

CHAIN-OF-CUSTODY RECORD

SHIPPED TO (Laboratory Name): Test America

REFERENCE NUMBER: 39611-40

PROJECT NAME: HEINCO

SAMPLER'S SIGNATURE: _____ **PRINTED NAME:** Tim Prange

SEQ. No.	DATE	TIME	SAMPLE IDENTIFICATION No.	SAMPLE MATRIX	No. OF CONTAINERS	PARAMETERS: Select VOCs	Select SVOCs	Select Metals	Cl, SO4	REMARKS
1	10/13/11	1352	GW-WT124-101311	Water	7	X	X	X	X	
2	10/13/11	1400	TRIP BLANK-101311-001	↓	1	X				
3	10/13/11	1523	GW-WT123-101311	Water	7	X	X	X	X	
			TOTAL NUMBER OF CONTAINERS		15					

RELINQUISHED BY: ① _____	DATE: 10/13/11 TIME: 1630	RECEIVED BY: ② _____	DATE: TIME:
RELINQUISHED BY: ② _____	DATE: TIME:	RECEIVED BY: ③ _____	DATE: TIME:
RELINQUISHED BY: ③ _____	DATE: TIME:	RECEIVED BY: ④ _____	DATE: TIME:

METHOD OF SHIPMENT: FedEx **TRACKING No.** 8724 2115 4242

White -Fully Executed Copy
Yellow -Receiving Laboratory Copy
Pink -Shipper Copy
Goldenrod -Sampler Copy

SAMPLE TEAM: Tim Prange, Jim Bolint

RECEIVED FOR LABORATORY BY: _____ DATE: 14 Oct 11 TIME: 0930 2665 TEST AMERICA

400001-00(SOURCE)GN-CO007

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** ____________
North Canton Facility

Client CPA Project Amco By: [signature] (Signature)
Cooler Received on 14 OCT 2011 Opened on 14 OCT 2011
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other ____
TestAmerica Cooler # A1009 Multiple Coolers ☐ Foam Box ☒ Client Cooler ☐ Other ____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☒ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 2 Quantity Unsalvageable ____
   Were custody seals on the outside of cooler(s) signed and dated? 10/14 Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? ____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☒ None ☐ Other Plastic bag
6. Cooler temperature upon receipt 4.0 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐ ____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☐
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☒ NA ☐
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☒ No ☐ Were VOAs on the COC? Yes ☒ No ☐

Contacted PM ____ Date ____ by ____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning

14. CHAIN OF CUSTODY

The following discrepancies occurred:

15. SAMPLE CONDITION

Sample(s) ____ were received after the recommended holding time had expired.
Sample(s) ____ were received in a broken container.
Sample(s) ____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) ____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 110410-HNO_3; Sulfuric Acid Lot# 110410-H_2SO_4; Sodium Hydroxide Lot# 121809 -NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot#* 100108-*$(CH_3COO)_2ZN/NaOH$.* What time was preservative added to sample(s)? ____

Client ID	pH	Date	Initials

SOP: NC-SC-0005, Sample Receiving
N:\QAQC\NARRATIVE\TestAmerica\Cooler Receipt TestAmerica\COOLER_TestAmerica_Rev 80 091511.doc

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials

Cooler #	Temp. °C	Method	Coolant

Discrepancies Cont'd:

Login Sample Receipt Checklist

Client: Conestoga-Rovers & Associates, Inc.

Job Number: 240-4878-1

Login Number: 4878
List Number: 1
Creator: Sutek, Nick

List Source: TestAmerica North Canton

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

EPA

United States
Environmental Protection
Agency

Public Meeting

EPA is holding a public meeting to discuss the Himco cleanup.

Monday, June 9
6:30 p.m.
Elkhart Public Library, Room 6
300 S. Second St.

For More Information

If you are interested in the Himco Dump cleanup, please contact:

Don de Blasio
Community Involvement Coordinator
EPA Region 5 (P-19J)
77 W. Jackson Blvd.
Chicago, IL 60604
312-886-4360 or 800-621-8431,
Ext. 64360, weekdays 10 a.m. -
5:30 p.m.
deblasio.don@epa.gov

Ross Delrosario
Remedial Project Manager
312-886-6195 or 800-621-8431,
Ext. 66195, weekdays 10 a.m. -
5:30 p.m.
delrosario.rosauro@epa.gov

Information repository

Elkhart Public Library
Pierre Moran Branch
2400 Benham Ave.

On the Web

www.epa.gov/region5/sites/himco

EPA Addresses Questions Raised at February Public Meeting

Himco Dump Site
Elkhart, Indiana — May 2008

U.S. Environmental Protection Agency met with Elkhart residents in February to discuss issues related to the Himco Dump Superfund site. Several questions and concerns emerged as dominant themes. EPA promised to look into those concerns and get back to the community with answers.

Bottled water for residents

Many residents near the Himco site said they are worried about the quality of drinking water coming from private wells. They said they wanted those responsible for the pollution to provide bottled water immediately for drinking and cooking.

Bayer Healthcare LLC is now providing bottled water service under provisions of a consent decree with EPA. Eight East Side families are getting bottled water service. All of the South Side families are on the city water system and do not need bottled water.

Testing of private wells

A related issue was the safety of private wells. Residents want their wells tested to determine the quality of the water, which is used not only for drinking and cooking but also for washing and watering vegetable gardens. No date on testing of private wells has been set.

EPA is working with Bayer Healthcare to develop a plan for testing monitoring wells first. That plan is expected to take about a year. After the design for monitoring-well testing is approved, Bayer Healthcare and EPA will address the issue of testing private wells.

Language on access agreements

Many residents complained that the language of access agreements was too difficult to understand and felt they should have a lawyer interpret it for them. The cost of hiring a lawyer made that an unpleasant prospect.

Bayer Healthcare's legal staff significantly simplified the language. Revised agreements will be sent soon to affected residents. The old agreements contained a provision giving Bayer Healthcare access to the properties for 49 years with an option of additional 49-year renewals. The new agreement allows the company only temporary access.

Cost of city water

Bayer Healthcare will be responsible for connecting 39 East Side residents adjacent to the site to the city water supply and permanently capping their private wells. The company estimated city water would cost an average of about $20 a month for each household. When residents disputed that figure, EPA offered to consult with the city water company to determine an accurate estimated cost. While individual household usage is a major factor in actual costs, the Elkhart Office of Public Works told EPA that consumers could expect to pay about $25 a month or less for normal usage.

Bayer Healthcare says the water bill will be partly offset by savings in electricity needed to operate pumps on the private wells.

Permanent payment of water bills

Many residents said Bayer Healthcare should pay their water bills as long as they own and live in the houses. The company voluntarily offered to pay for connection to the city water system and give each of the nearby households $1,000 to ease the expense of city water.

Based on city estimates of cost, that amount will cover average household water usage for about three years. Bayer Healthcare has not agreed to the request for permanent payment of water bills. Bayer is not required by law to pay any water bills.

Reminder: Upcoming public meeting

EPA is hosting a public meeting to discuss the Himco cleanup:

Monday, June 9
6:30 p.m.
Elkhart Public Library,
Room 6
300 S. Second St.

United States
Environmental Protection
Agency
Region 5
Superfund Division (P-19J)
77 W. Jackson Blvd.
Chicago, IL 60604

FIRST CLASS

RETURN SERVICE REQUESTED

ROSS DELROSARIO
REMEDIAL PROJECT MANAGER
U.S. EPA, REGION 5, ~~(R-19J)~~
77 W. JACKSON BLVD.
CHICAGO, IL 60604

SR-6J

EPA Addresses Questions Raised at February Public Meeting