

### **Hi-Land Acres Water and Sanitation District**

#### **North Well**

- The North Tank is still drained awaiting the completion of the welgicide application to refill from the North Well.
- Welgicide cleaner has been received by the vendor and will be scheduled in the coming weeks.
- ORC has reached out to Water Systems Engineering for a cost proposal to investigate the North Well and provide a report similar to that of Twin Lake Estates. See the estimate attached. We recommend getting samples prior to and after the welgicide application.

#### **South Well**

- Normal operation without any difficulties.
- Tank level within normal range for the month.
- With North well turned off, the South well is handling all distribution usage needs.

#### **Distribution System**

- Normal operations
- Bacteriological sampling collected and passed.

## 2022 Schedule of Laboratory Fees

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### **Complete Well Profile (one casing sample and one aquifer sample) \$ 1300.00**

Includes following chemical and biological analyses:

pH, alkalinity, bicarbonate, carbonates, chloride, total dissolved solids, conductivity, total hardness, calcium, magnesium, copper, iron, manganese, phosphate, nitrate, silica, sulfate, tannin, potassium, sodium, chlorine, Oxidation-Reduction Potential (ORP), Total Organic Carbon (TOC), Saturation Index calculation, Heterotrophic plate count, cell count made by adenosine triphosphate (ATP) method, bacterial identification of the two major populations, assessment of aerobic and anaerobic growth, sulfate reducing bacteria (SRB), iron oxidizing bacteria, total and E.coli coliform bacteria, and microscopic evaluation.

Includes Report with observations and interpretation of data with regard to well operation, if applicable, limited recommendations are presented.

Addition of Scale Sample Analyses to compliment water samples \$ 325.00

Addition of complete well rehabilitation recommendations \$ 250.00  
To include rehabilitation procedures, chemical calculations,  
post-treatment maintenance and monitoring recommendations.

### **Bacterial Assessment (one sample) \$ 600.00**

Heterotrophic plate count, identification of the two major populations, assessment of aerobic and anaerobic growth, ATP, sulfate reducing bacteria (SRB), iron oxidizing bacteria, total and E.coli coliform bacteria, and microscopic evaluation.

Addition of the evaluation of water chemistry data submitted with the sample for further diagnostic efforts and development of recommendations. \$ 300.00

### **Monitoring Test (Previous Complete Profile Required – one sample) \$ 270.00**

Follow Complete Profile, used to monitor changes in the well environment. Includes ATP, anaerobic and SRB testing, pH, total dissolved solids, iron, manganese, microscopic evaluation.

### **Total Coliform Determination**

Presence/Absence Test \$ 25.00  
Speciation (per species identification) \$ 45.00

### **Scale or Deposit Analysis \$ 600.00**

Pre-measured amount of sample is digested with acid and solution is analyzed with spectrophotometric, turbidimetric or titrimetric methods for final analyses. Gravimetric analysis with furnace used to determine organic portion. Includes microscopic evaluation of structures and/or particulate, bacterial identification of dominant species, and dissolution test for cleaning evaluation.

**Every sample will incur a \$15 fee for laboratory waste disposal and management**

## 2022 Schedule of Laboratory Fees

### Microscopic Examination and Evaluation \$ 65.00

Useful method for identification of bacterial activity, formation influence, scale accumulation, corrosion by-products, larger microorganisms, and biomass evaluation

### Industrial Water Assessment / Corrosion Potential Evaluation \$ 350.00

Analysis and calculation of Langelier Saturation Index (LSI) and Ryznar Stability Index (RSI), hardness, ferrous and total iron evaluation, copper analysis, and testing for the presence of sulfate reducing bacteria and multiple species of iron oxidizing bacteria.

### Filter Media Assessment (one sample) \$ 590.00

Complete chemical and biological identification of the fouling present on a submitted filter sample; to include chemistry of material removed from media by acid wash, bacterial enumeration (ATP method), bacterial identification of the two major populations present, microscopic evaluation, photographs of media before and after acid cleaning (when applicable).

Sieve analysis for grain size distribution. \$ 75.00

**Each sample will incur a \$15 fee for laboratory waste disposal and management.  
All waste water samples or those exhibiting polymer presence will be subject  
to a \$35 fee for additional handling and testing.**

**Specific requests for contracts or certificates of insurance must be submitted prior to sample arrival and are subject to additional fees.**

### Consulting Services

Professional services, depending on level desired, <i>start at</i>	\$ 150.00 per hour
Technician Staff <i>starts at</i>	\$ 50.00 per hour
Special research projects or in-lab work	\$ 45.00 per hour

Special projects and extended site work, rates are negotiable. Well design, on-site consulting, project management, and field supervision services are available. Contract research projects or long-term studies are available and can be arranged. Travel expense invoiced at actual cost.

**Note:** Please complete an applicable data sheet for each sample submitted. *Samples will be held and no testing performed until data and a valid purchase order is received.* Well, Media, and General sample data sheets are available online or by contacting the lab. Sample bottles, sampling instructions, and mailing cartons are available on request. Special testing, research activities, infiltration studies, etc., can be performed on request, please contact us for more information. Specific requests for contracts or certificates of insurance must be submitted prior to sample arrival and are subject to additional fees. A laboratory disposal fee of \$ 15.00 will be assessed per sample on all projects.

### CONTACT INFORMATION

<b>Samples:</b>	WSE - LAB 3201 Labette Terrace Ottawa, KS 66067	<b>All other Inquiries:</b>	Water Systems Engineering PO Box 700 Ottawa, KS 66067
Phone:	785.242.6166 Ext 1		785.242.6166
Email:	lab@h2osystems.com		info@h2osystems.com

## TECHNICAL SERVICES AGREEMENT

This serves as an Agreement, effective on date of submittal, between the Client and Water Systems Engineering, Incorporated (Consultant). Consultant shall perform Services in accordance with written Requests for Services (Requests) issued by Client and agreed to by Consultant during the term of this Agreement, which shall be attached as separate Exhibits. Consultant shall accept or decline a Request as promptly as practicable under the circumstances. A Request shall not amend or add to this Agreement in any respect except to describe the new scope of Services, the schedule therefore, and the applicable compensation terms. Additional or conflicting contractual terms or conditions may be added only by formal written amendment to this Agreement and not through Requests.

1. Consultant warrants that it shall perform the Services in accordance with the standards of care and diligence normally practiced by recognized Consulting firms in performing services of a similar nature. If, during the six month period following the earlier of completion or termination of the Services under the applicable Request for Service it is shown there is an error in the Services caused solely by Consultant's failure to meet such standards, and Client has promptly notified Consultant in writing of any such error within that period, Consultant shall perform, at Consultant's cost, such corrective services within the original Request for Service as may be necessary to remedy such error.
2. If the Services involve the purchase of equipment, materials or services from others, then Consultant shall, for the benefit of Client, use reasonable efforts to obtain from all vendors, subcontractors and contractors from whom Consultant procures such equipment, materials or services for the Services, guarantees with respect to such equipment, materials and services. Such guarantees shall be made available to Client to the full extent of the terms thereof. Consultant's liability with respect to such equipment, materials, and services shall be limited to using reasonable efforts to obtain guarantees from such vendors, subcontractors or contractors and rendering all reasonable assistance (excluding litigation and dispute resolution) to Client on a reimbursable cost basis for the purpose of enforcing the same.
3. Consultant shall maintain in force, during the period that Services are performed, workers' compensation insurance in accordance with the laws of the state (Kansas) having jurisdiction over Consultant's employees who are engaged in the Services and employer's liability insurance with a limit of \$1,000,000 each occurrence and in the aggregate. Consultant also shall maintain a commercial general liability insurance policy with combined single limits of \$1,000,000 per occurrence and in the aggregate; an automobile liability insurance policy with combined single limits of \$1,000,000 per occurrence and in the aggregate; and professional liability insurance with an aggregate limit of \$1,000,000. Requests for certificates of insurance will incur additional fees and must be received prior to sample arrival.
4. Consultant shall indemnify Client against any and all claims, demands and causes of action for bodily injury to or death of persons or for damage to or destruction of property (other than property of Client or construction work in progress, for which Client shall have responsibility) resulting solely from any and all negligent physical acts of Consultant while at Client's facility. The parties hereby waive all claims for property damage, and shall require their insurers to waive subrogation rights against the other party under any applicable policy of property insurance.
5. In performance of the Services it is understood that Client and/or others may supply Consultant with certain information and/or data, and that Consultant will rely on such information. It is agreed that the accuracy of such information is not within Consultant's control and Consultant shall not be liable for its accuracy, nor for its verification.
6. Client may, with or without cause, terminate the Services at any time upon ten working days written notice to Consultant. In such case, Consultant shall be paid costs incurred and fees earned to the date of termination and through demobilization and neither party shall be entitled to any other compensation or damages from the other. At all times each party shall retain all of its rights in its drawing details, designs, specifications, databases, computer software, copyrights, trade and service marks, patents, trade secrets, and any other proprietary property.
7. Client may audit and inspect Consultant's records and accounts covering reimbursable costs for a period of six months following the completion of Consultant's Services. The purpose of any such audit shall be only for verification of such costs. Consultant shall not be required to keep records of or provide access to those costs expressed as fixed rates, a lump sum, or as a percentage of other costs.
8. Neither party shall be liable to the other party for loss of profits or revenue; loss of use; loss of opportunity; loss of goodwill; cost of substitute facilities, goods or services; cost of capital; governmental and regulatory sanctions; and claims of customers for such damages; or for any special, consequential, incidental, indirect or exemplary damages whether a claim for any such loss arises out of breach of contract, warranty, tort (including negligence), strict liability, indemnity, or another theory. Except for an obligation to make payments, neither party shall be in default to the extent any nonperformance is caused by a circumstance beyond such party's reasonable control. The warranties, obligations, liabilities and remedies of the parties, as provided herein, are exclusive and in lieu of any others available at law or in equity. Consultant's total aggregate liability under this Agreement shall not exceed the compensation received by Consultant under the applicable Request for Services, and Client agrees to release, defend, indemnify, and hold Consultant harmless from and against any and all further liability arising in any manner from the Services. To the fullest extent allowed by law, releases from, and limitations of liability shall apply notwithstanding the breach of contract, tort including negligence, strict liability or other theory of legal liability of the party released or whose liability is limited.

This Agreement and any necessary Exhibits constitute the entire Agreement. No other representations of any kind, oral or otherwise, shall have any effect. The laws of the state of Kansas, notwithstanding the operation of any conflict or choice of law statutes or decisional law to the contrary shall govern this Agreement.