



Interstate Gas Supply (IGS) Headquarters

Dublin, Ohio 2009-2010

Geo Source One Inc. serves as consultant to client (IGS) and advisor to project architect, Bird Houk Collaborative and mechanical engineer, Prater Engineering Associates, for the design and installation of a hybrid geothermal loop system for a new 100,000 sq. ft. (9,300 square meter) IGS headquarters building. Close attention to architectural detail and energy efficiency may qualify this structure as one of the Top LEED Gold office structures in Ohio.

Elements of this geothermal hybrid design include:

1. 180 tons (632KW) of stainless steel lake-plate heat exchangers. The heat exchangers are immersed in landscaping and storm retention ponds. The lake-plate heat exchangers reject heat from the building geothermal loop to the pond water which in-turn is cooled by decorative water fountains.
2. A high capacity water supply and recharge well, capable of operation at over 500 gallons per minute (2,000 liter per minute).
3. Stainless plate heat exchangers to isolate well water from the non-toxic building geothermal recirculation fluid.
4. Heat- recovery from data-center air-conditioning systems which discharge their rejected heat to the internal geothermal loop.
5. A Munters Dedicated Outdoor Air System (DOAS) 15,000 cfm. (425 cubic meters per minute) heat- recovery, dehumidification, and fresh air make-up system operates off the building geothermal loop.
6. Parking garage ramp with snowmelt; passively managed with excess heat rejected by the building loop.

Design changes initiated by Geo Source One, create a hybrid geothermal loop, resulting in a “first cost” savings to the client in excess of \$800,000.