# CASE STUDY
UNION COUNTY, NEW MEXICO FARM

The new water well located by AquaterreX delivered over 1300 gallons of fresh water per minute!

OVERVIEW

When the owner of his sprawling farm in New Mexico and his son and partner determined that the new water well located by AquaterreX was delivering over 1,300 gallons of fresh water per minute, he said, "We were thrilled." Part of the reason for their excitement was that local water well records have indicated that yields from nearly all wells have declined over the last 50 years. Wells in the area were described as producing at half the earlier rates and the yields have been steadily declining.

THE CUSTOMER

The family grows corn on 2,160 acres in northeast New Mexico located along the border with Texas. The high plains economy has been based on agriculture for over 100 years. They learned about the unique high technology approach that AquaterreX employs to locate water, "Even where others say there is none." After discussions about their need to add more water production to their center pivot irrigation system, the family hired AquaterreX to complete a comprehensive multicomponent geospatial analysis of their land that included satellite imagery, enhanced gravimetric, radiometric and magnetic analyses as well as geologic, hydrologic and other data sets. This first Phase uses artificial intelligence to assess the area for the presence of both shallow and Deep Seated Water.
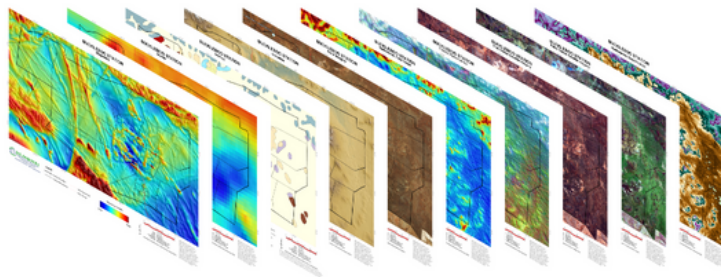
1300
Gallons Per Minute

"The advanced technology AquaterreX brought to our project was impressive. The combination of data, hardware and software helped them pinpoint exactly where to drill and informed us of estimated yields. As it turned out, we got even more water than we expected." -- Farm Owner

Farm sections in New Mexico – 2,160 acres

WHERE TO DRILL

The resulting report provided several Areas of Interest within their properties that were promising locations for well bore sites.

The Second Phase of the project involved sending a team of scientists, including a PhD-level hydrogeologist and a certified geologist-hydrogeologist, to conduct an on-location survey of the Areas of Interest using two different patented instruments with advanced software. This effort, which includes hundreds of seismic readings, provides an extremely accurate picture of the underground environment. Analysis of this data results in identifying the most promising locations for well bores. It delivers the exact GPS coordinates for the well; depth to water strata; thickness of the strata; estimated yield in gallons per minute; and confirms that the water is not saline.

THE RESULTS

The AquaterreX Phase II report recommended two well bore locations on the properties. The owners decided to drill a well in the highest yielding location. The drilling depth of 654 feet (199 meters) resulted in **1,325 gallons per minute**. Subsequent 24-hour pump testing determined a yield of 1,200 gallons per minute using a smaller pump, which the owners intend to draw between 1,100-1,200 gallons per minute when in use in order to conserve the aquifer. At this volume they will be able to tie in two center-pivot irrigation systems.

At AquaterreX, we encourage conservation. The abundance of this one well could allow for both water storage and pausing extraction for periods of time.

"This is one of the best wells in the county." -- Well Driller

DSW BENEFITS

- Alternative Source of Fresh Water
- Complements Existing Water Conservation Measures
- Protects Against Contamination or Pollution
- Permits Shallow Aquifers to Recharge and Restores Surface Water
- Reinforces Sustainable Water Management and Security
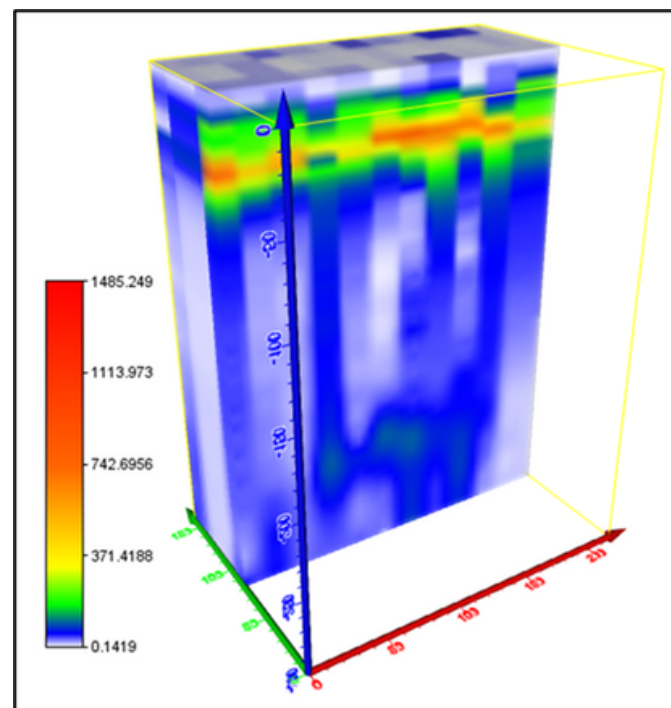- Economical, Fast, and Scalable

For more information, please visit www. Aquaterrex.com
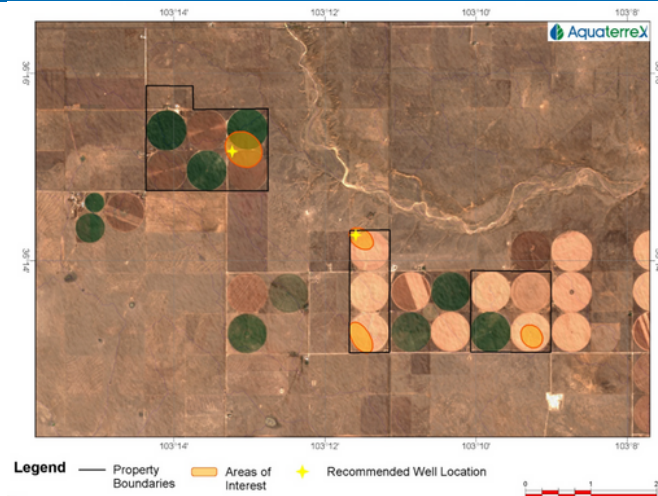
Areas of Interest (yellow ovals) identified on three sections of the Farm

Grid with 65 readings and three deep seismic date points

3D model of underground structure