Water Investigation & SeismoElectric Survey

Location: BRIGGS PROPERTY, US HWY #183, BERTRAM, TX 78605

FINAL REPORT

Client :

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INTRODUCTION

A Geophysical survey was conducted on December 13-16, 2024 near Briggs, TX called the survey site in this report. The objective of the survey is to locate a source of groundwater, estimate (interpret) its depth and, to the degree possible, estimate the permeability (yield) of the rock formation that contains the groundwater (aquifer). The groundwater, if found, will be produced by drilling a water well into the aquifer to serve an undeveloped property.

The survey was conducted using the Seismoelectric method, which has the potential to provide the approximate depth and yield of subsurface water bearing formations. This method is sometimes referred to as the Electro-Kinetic Survey (ESI) method.

The general location of the survey site, along with the locations of the individual soundings, is shown on figure 1.

GEOLOGY

The geology in this area, which is taken from well reports and local geologic maps, generally consists of varying layers of mainly clay and caliche transitioning to varying layers of mainly limestone, sandstone and shale.

All the geologic information used in this report is taken from geologic maps provided by government agencies and well reports registered with the state. These are used to provide the geologic information relevant to this survey and in particular the rock types, from which velocity information is used to assist in the interpretation of the data recorded in this survey.

Research conducted prior to the field survey revealed 8 recorded wells for the immediate surrounding area had depth ranges between 585 feet and 620 feet and reported yield ranges from 13gpm to 45gpm. We were not able to obtain confirmation that any of the reported yields were based on long term pump tests which reduces the reliability of the yields reported on the water well reports used for research.

DATA ACQUISITION and PROCESSING

The data was acquired using an AquaLocate GF6 Seismoelectric Survey System. The method works because electrical signals are often produced when seismic compression waves encounter water-saturated rocks. More details of this system and the basic theory of the Seismoelectric method are provided in Appendix A. In order to record the electrical signals four electrodes, have to be inserted vertically into the ground and connected to the AquaLocate ™ receiver.

The electrodes were 1.0 meter long and constructed from steel with a copper sheath surrounding the steel core or stainless steel.

Seismoelectric soundings were recorded at 20 sites, which were detailed as shown on figure 1. The locations of the sites were chosen based on the client's request and were located at sites agreed to by the client and accessible by the survey vehicle.

The geographic coordinates of the sites, using the WGS84 spheroid, were obtained in the field with a handheld GPS instrument.

The data was processed using software that is proprietary to the AquaLocate ™ Seismoelectric system.

Calibration data was not available at the time of the survey. Calibration data often helps improve estimate accuracy and is nearly always needed to produce accurate yields for areas where yield potentials exceed 15gpm.

Due to shallow solid rock occurrence within 12 inches or less of the surface at all test sites, a method of data collection which differs significantly from our standard data collection methods was used on this property. The alternate method of data collection somewhat increases the potential for inconclusive data, however for this project it appeared to work well.

RESULTS and INTERPRETATION

Although it is possible to interpret the depth to the top of the aquifer, the following results present only the interpreted depth to its bottom. This is because the interpreted yields assume that the full thickness of the aquifer is used to produce water, and that presenting the depth to the top only would not provide a realistic estimate of the actual drill depth required in order to obtain the interpreted yield. Another reason for presenting the depth to the bottom of an aquifer is that the depth to the top of an aquifer can vary depending on the time of year and longer term weather conditions, as well as other wells drawing water from the same aquifer. Thus, because the depth to the top of an aquifer may change due to the conditions described above, a well that is drilled only a short distance into an aquifer may have a yield that is more susceptible to these changes. An additional factor is that a cone of depression may occur around a well as it is pumped, further reducing the yield of a well that is only drilled for a short distance into an aquifer. The cone of depression may be more pronounced for wells drilled into low permeability formations.

The Seismoelectric method does not have the resolving power to generally predict the depth within an aquifer where the best yield may occur. If however, a sufficient yield is obtained before the interpreted bottom of the aquifer is reached, then it may be reasonable to stop drilling before this depth is reached.

It should be noted that the depth estimates provided in this report rely on estimates of the seismic velocity of the rocks under the sounding site. Even for a well-defined rock type, such as Granite, or Sandstone, seismic velocities can vary considerably depending on many factors, including the degree of weathering of the rock, fracturing and, for sedimentary rocks, degree of consolidation. Rock velocities can also vary with the geologic age of the rock, with older rocks generally having higher velocities. The velocities used in order to calculate the depth estimates are, in general, averages of the velocity of the particular rock types suspected to exist at each sounding location.

Because many factors influence the interpreted yield, including the method used to drill a well, and in order to present the interpreted yields with accuracy that is realistic, the yield interpretation for each sounding is presented as one of a range of yields and is assigned an alphabetic label (category), as defined in the following table.

Interpreted Yield (in gpm)	Category
0 – 3	A
2 – 6	B
5 – 10	C
8 – 15	D
12 – 25	E
18 – 35	F
25 – 50	G
35 – 65	H
50 – 95	I
70 – 130	J
100 – 180	K
140 – 250	L
200 – 350	M
300 – 550	N
450 – 850	O
> 850	P

The interpreted yields were primarily obtained by using the proprietary software available to AquaLocate and assume that a 10-inch well is installed. The yield estimates assume that the full thickness of the aquifer is used down to the base of the aquifer specified at each test site.

The following provides the interpretation of the data from each Seismoelectric sounding. Based on past results, all of the following interpreted depths and yields may vary by ± **20%**, or sometimes more.

Site 31 is located at a site identified by the client at 30.857636/-97.914139 and indicates that the base of the aquifer is at approximately 560 feet bgs (below ground surface) and had an estimated yield of Category E (12-25gpm).

Site 32 is located near site 31 and indicates that the base of the aquifer is at approximately 575 feet bgs and had an estimated yield of Category D (8-15gpm).

Site 33 is located near site 32 and indicates that the base of the aquifer is at approximately 575 feet bgs and had an estimated yield of Category E (12-25gpm).

Site 34 is located near site 33 and indicates that the base of the aquifer is at approximately 560 feet bgs and had an estimated yield of low Category D (8-15gpm).

Site 35 is located near site 34 and indicates that the base of the aquifer is at approximately 560 feet bgs and had an estimated yield of Category D (8-15gpm).

Site 36 is located near site 35 and indicates that the base of the aquifer is at approximately 575 feet bgs and had an estimated yield of Category D (8-15gpm).

Site 37 is located near site 36 and indicates that the base of the aquifer is at approximately 560 feet bgs and had an estimated yield of Category D (8-15gpm).

Site 38 is located near site 37 and indicates that the base of the aquifer is at approximately 575 feet bgs and had an estimated yield of Category D (8-15gpm).

Site 39 is located near site 38 and indicates that the base of the aquifer is at approximately 560 feet bgs and had an estimated yield of low Category D (8-15gpm).

Site 40 is located near site 39 and indicates that the base of the aquifer is at approximately 550 feet bgs and had an estimated yield of low Category D (8-15gpm).

Site 41 is located near site 40 and indicates that the base of the aquifer is at approximately 575 feet bgs and had an estimated yield of Category E (12-25gpm).

Site 42 is located near site 41 and indicates that the base of the aquifer is at approximately 560 feet bgs and had an estimated yield of Category E (12-25gpm).

Site 43 is located near site 42 and indicates that the base of the aquifer is at approximately 575 feet bgs and had an estimated yield of low Category D (8-15gpm).

Site 44 is located near site 43 and indicates that an aquifer was not conclusively detected.

Site 45 is located near site 44 and indicates that the base of the aquifer is at approximately 560 feet bgs and had an estimated yield of Category E (12-25gpm).

Site 46 is located near site 45 and indicates that the base of the aquifer is at approximately 560 feet bgs and had an estimated yield of Category D (8-15gpm).

Site 47 is located near site 46 and indicates that the base of the aquifer is at approximately 560 feet bgs and had an estimated yield of low Category D (8-15gpm).

Site 48 is located near site 47 and indicates that an aquifer was not conclusively detected.

Site 49 is located near site 48 and indicates that an aquifer was not conclusively detected.

Site 50 is located near site 49 and indicates that the base of the aquifer is at approximately 575 feet bgs and had an estimated yield of Category D (8-15gpm).

SUMMARY and CONCLUSIONS

The interpretation of the data indicates that potential groundwater is observed at the sites indicated. The estimated depth for the aquifer is between about 550 and 575 feet bgs and the estimated yields listed between low Category D (8-15gpm) to Category E (12-25gpm).

It should be noted that the interpreted yields made by the AquaLocate equipment involves many assumptions and should only be used as a guide for selecting drilling locations. Previous yield interpretations have been nearly exact in some instances but have also been lower, and higher, than that which was obtained after drilling had been completed. However, the values presented are only estimates based on the interpretation of the Seismoelectric data.

RECOMMENDATIONS

The choice of which site to have a well drilled depends on many factors and will be primarily decided by the client.

Drilling in areas with a potential yield of less than 5gpm can have a higher risk due factors in the drilling process that can at times significantly and permanently affect the final yield of a low yield aquifer. Final yields in these types of aquifers have the possibility of being as low as **0.0** gallons per minute. Potential aquifer flows can change over time due to increased use and reduced recharge. In areas where higher volume salty water is possible (usually over 20gpm), low yield estimates may be caused by the conductivity of the salty water rather than an actual low yield aquifer.

Prior to drilling (if done) it should be ascertained that the drill operator has substantial experience with the drilling equipment and that he or she operates the equipment correctly. In addition, the property owner should be present during the drilling process. It should be noted that drilling always causes damage to the aquifer local to the drill site and this should be considered prior to drilling to an aquifer that has an interpreted low yield. This report should be used as a guide, along with the driller's experience drilling in the area.

If a well is drilled at this site, part of its development should include a long flow test (often 4 to 12 hours in length) in an attempt to remove all of the sediment and air that may have been introduced into the surrounding rock formation (aquifer) by the drilling process, and that may restrict the flow of water into the well and therefore the subsequent yield. The flow test may need to be longer for less productive water bearing zones. Well development is not limited to extensive flow tests and we recommend you consult with a well development expert on how to best develop your new well if you choose to have one drilled. We consider well development a critical part of the water well completion process. If the well is not properly developed the volume of the well may not reach is maximum potential or may not produce water at all.

As stated earlier in this report, the interpreted depths in this report should be generally used as a maximum depth to drill. If the interpreted yield is obtained at a shallower depth than that provided by the interpretation, drilling to greater depths is not necessarily recommended.

All of the data recording, analysis, interpretations and conclusions in this report has been prepared by persons who have had a rigorous training in the acquisition and analysis of Seismoelectric data by AquaLocate.

Figure 1. Site location and Seismoelectric sounding locations

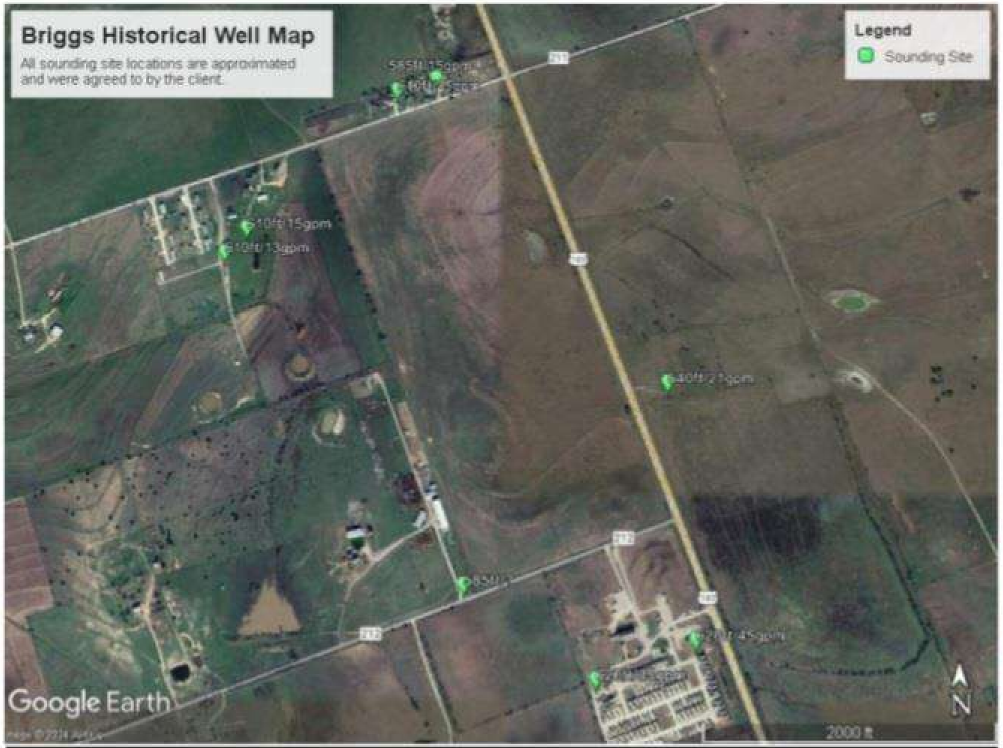

Figure 2. Historical Water Well Map

APPENDIX A

The Seismoelectric Survey Method

Introduction

The Seismoelectric method, sometimes called the Electrokinetic Survey (ESI) or Electroseismic method, is a geophysical technique that attempts to provide the depth to groundwater and an estimate of the permeability, and hence yield, that might be expected from a well drilled into the aquifer. The Physics of the method has been understood since the 1930's when Thompson (1936) and Ivanov (1939 and 1950) were the first to realize that a seismic compression wave (p-wave) impulse will provide sufficient oscillating pressure in rock pore fluids to produce a measurable oscillating electrical potential at the ground surface.

The Seismoelectric method is related to the commonly known phenomenon called streaming potential, where flowing subsurface water produces a voltage measurable on the ground surface. A more distant relative of the method, where rapidly rising air produces electrical charge separations, thus creating large potential differences, are thunderstorms.

Since the papers by Thompson and Ivanov were written, many investigations into the method have been completed and many papers have been published; the more significant of these are listed at the end of this document.

Until recently, the electrical signal from a seismic pulse impinging on subsurface groundwater was difficult to measure since electrical noise, especially powerline noise, contaminated the data. However, Groundflow Ltd, based in the UK, discovered a new detection method that is now patented both in the UK and USA. This method uses electrically isolated lines from each electrode pair, referencing their potentials to a floating virtual earth, and positioning the electrode pairs close to the seismic source, thereby achieving a significant improvement in the signal to noise ratio.

A significant amount of research is now being done into this method with organizations such as the Massachusetts Institute of Technology (MIT), Exxon Production and Research Company and the Australian Nuclear Science and Technology Organization becoming involved.

Basic Theory of the Method

Seismoelectric effects are initiated by seismic waves, usually p-waves, passing through a porous rock and inducing relative motion between the rock matrix and the fluid within the rock pores. Motion of ionic fluid through capillaries in the rock occurs with cations preferentially adhering to the capillary walls, so that the applied pressure and resulting fluid flow relative to the rock matrix separates the cations and anions thus producing an electric dipole. This is called the Seismoelectric effect.

This is illustrated in Figure 1. A seismic source produces a seismic compression wave, which then propagates into the ground at a speed depending on the rocks through which it passes. Generally this speed varies from about 5000 ft/sec to over 10,000 ft/sec in sedimentary rocks, but can be faster in igneous and metamorphic rocks. The wave spreads out to form a hemisphere as illustrated in Figure 1. When the initial pressure pulse reaches the water table, or a rock saturated with water, electrical charges are separated as described above, and the electrical signal is transmitted back to the ground surface at approximately the speed of light. Conversely, when the wavefront emerges from the saturated zone (aquifer) at depth into a layer with little water, the signal decays to zero. The signal also usually decays to zero if the water in the aquifer becomes saline. Generally, the amplitude of the signal will also decay slowly with depth, as the spreading seismic wave loses its high frequency components and its amplitude decreases due to spherical divergence along with other factors. The fundamental relationships between the spreading seismic wave, the resulting electrical dipoles (charge separations) and the voltage at the ground surface are complex.

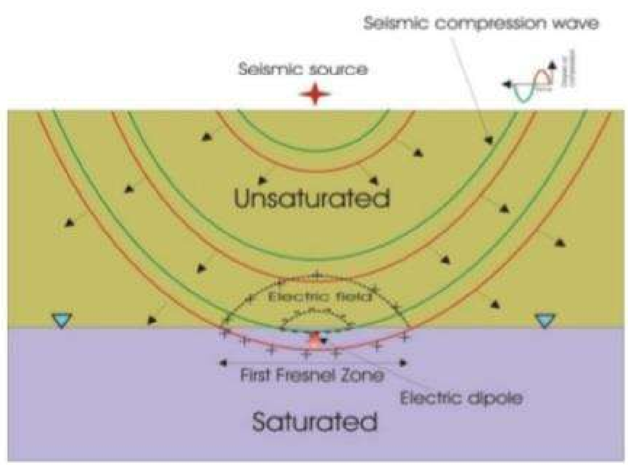

Figure 1. Schematic drawing illustrating the basic principles of the Electroseismic method at the top of an aquifer. This diagram should be rotated about its axis (seismic source) by 180° to image the hemispherical nature of the seismic wave.

The circular area (in plan view) encompassed by the leading edge of the pulse when the negative part the pulse just intersects the interface is called the first Fresnel zone. As can be seen in Figure 2, the curvature of the wavefront and the Fresnel geometry ensures that the signal is focused back to the shot point.

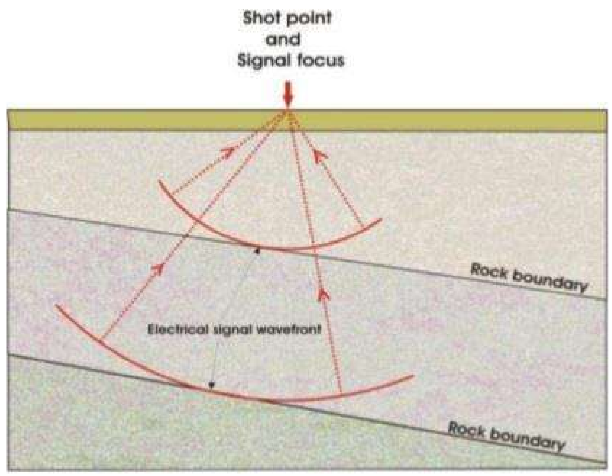

Figure 2. Schematic showing the focusing of the electrical signals back to the shot point.

Measuring the Seismoelectric Effect.

The geometry of the seismic source and electrode array used to measure the Seismoelectric effect are illustrated in Figure 3. The electrodes in the array are spaced symmetrically about the seismic source at distances from the source of about 2.5 and 8 feet. The seismic wave is created and the instrument measures the resulting electrical signal.

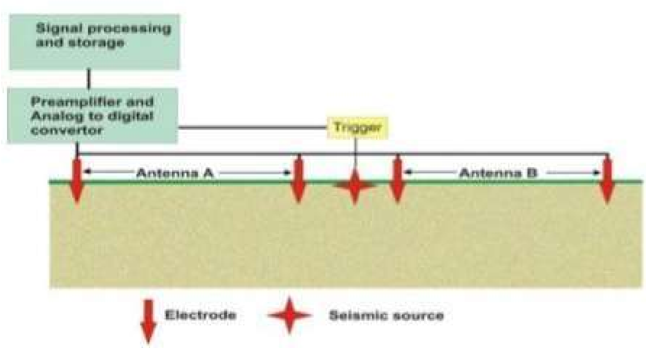

Figure 3. The geometry of the seismic source and electrodes used to measure the Seismoelectric effect.

One of the instruments used to measure the Seismoelectric effect is called the AquaLocate GF6. This instrument incorporates the floating electrode system described earlier in this text.

Interpretation

Water can move within the pores of the rock easier in good aquifers (high permeability and porosity) than in poor ones and this provides the basis for assessing aquifer quality. If the water moves easily then it will move rapidly when under the influence of the seismic pulse. If the rock has a low permeability or hydraulic conductivity, then the water will move slowly. This causes the shape of the Seismoelectric signal to be different in these two cases. A good aquifer will produce a more rapid rise in the signal amplitude than a poor one, all else being equal. A steeper rise time implies that the signal contains higher frequencies than a slow rising signal and the signal is said to have a greater bandwidth. Water yield estimates can be obtained from the signal bandwidth and the calculations to do this are programmed into the GF2500 instrument. The depth to the top of the aquifer is found from the time taken for the seismic signal to travel to the aquifer, which can be found from the time to the first arrival of the Seismoelectric signal. Likewise, the depth to the bottom of the aquifer can be estimated from the time when the ESI signal decays to zero. In other words, the aquifer thickness can be found from the length of the Seismoelectric signal. The velocity of seismic waves in different rock types is generally well known from seismic surveys, although there can be significant variations in the velocity of rocks, depending on several factors.

Limitations of the Method

The main limitations of the Seismoelectric method relate to the depth of investigation and the depth resolution, the chemistry of the water, the geology of the aquifer and to the geometry of the signal generation array.

The depth of investigation depends on the strength of the seismic source and on the nature of the soil and subsoil. A soft soil and subsoil will attenuate the seismic signal and limit penetration depth. A hammer source can usually provide investigation depths to 250 or 300 feet. A buffalo source can investigate to depths of over 1500 feet.

Resolving the thickness of an aquifer depends on the length of the seismic pulse, which depends on the speed of seismic waves in the rocks. The higher the speed of the seismic pulse the longer is its wavelength and consequently, the lower is its resolution. In low speed rocks resolution may be 5 to 15 feet whereas in rocks with high velocities the resolution may be 15 to 45 feet, or even less.

Predicting the depth to an aquifer depends on knowing the seismic velocity of the rocks under the sounding site. Since the velocity of even well defined rocks, for example sandstone, can vary widely from site to site, unless these velocities are measured, then an estimate has to be used. If a local well is available where a sounding can be conducted, then this will provide a "calibration", and should make the interpreted depth more reliable.

If an aquifer contains saline water then the Seismoelectric signal is essentially "short circuited" and no signal is observed, hence Seismoelectric signals are only observed from fresh water aquifers.

The focusing effect of layered aquifers discussed earlier is advantageous when using the electrode array centered about the seismic source and works well for most layered, usually sedimentary, rocks. However, the method is not as effective in areas where the aquifer lies in cavities and large fractures although it can detect aquifers in fractured brittle rocks if they form layers. Limestone Karst terrain is an example of where the method is not usually successful.

Aquifers

An aquifer is a water saturated permeable geologic layer, or fracture zone, that is able transmit significant quantities of water. A geologic layer that cannot transmit significant quantities of water is usually referred to as an aquiclude. An aquitard is a rock unit that generally has a low permeability and hence will transmit only very limited quantities of water and are generally not suitable for production wells. The terms Aquifer or aquitards can be used to define most geologic strata. The most common aquifers include permeable sedimentary rocks such as sandstones, limestones, sand and gravel layers, and highly fractured volcanic and crystalline rocks. Common aquitards are unfractured shales, clays and dense (unfractured) crystalline rocks.

Sedimentary aquifers form layers and usually have a large lateral extent, whereas aquifers in fracture zones in igneous and crystalline rocks may have a very limited lateral extent. When searching for water using any geophysical method, including the Seismoelectric method, the type of aquifer that may be present should be considered, both when planning a survey and especially when considering drilling.

The Seismoelectric method responds to a subsurface circular area whose radius depends on the dimensions of the first Fresnel zone and for practical purposes is approximately equal to one third of the depth to the aquifer. If the survey is conducted in an area where the aquifers reside in fracture zones, it is possible (although highly unlikely) that the Seismoelectric signals will predict the occurrence of an aquifer, which occurs within a fractured area whose lateral extent is limited, but the drill hole may not intersect the fracture zone that provides the Seismoelectric signal. Since the radius of the circle of influence for the Seismoelectric method increases with the depth of the investigation, the difficulty of intersecting the fracture zone with a drill becomes greater as the depth to the aquifer increases.

APPENDIX B

AQUIFER-SPECIFIC WELL SPACING REQUIREMENTS

The well spacing and tract size requirements set forth in this appendix apply to wells or proposed wells that are required to comply with these requirements pursuant to Chapter 6 of the rules.

A. Trinity Aquifer

The following well spacing requirements shall apply to wells completed in any layer of the Trinity Aquifer, as such aquifer is described in the District Management Plan, current and previous versions of the State Water Plan, and the applicable numbered groundwater reports and other official publications of the Texas Water Development Board:

Well Capacity	**Minimum Tract Size**	**Spacing from Other Well Sites**	**Spacing from Property Line**
The maximum amount of water the well can actually produce as equipped in gallons per minute (gpm).	The minimum tract size (if platted after 9/1/2009) that is owned or controlled, in acres, which may be considered an appropriate site for a well of a specified capacity.	The minimum distance, in feet, that a new or substantially altered well or proposed well site may be located from a registered well or authorized well site that does or will produce water from the same subdivision of the same aquifer.	The minimum distance, in feet, that a new or substantially altered well or proposed well site may be located from the nearest property line or limit of control of the tract of land on which it is to be located.
17.36 gpm or less	Minimum Tract Size is 2 acres	100 feet	50 feet
More than 17.36 gpm but less than 30 gpm		500 feet	250 feet
More than 30 gpm but less than 40 gpm		1,000 feet	500 feet
40 gpm or larger but less than 80 gpm		1,800 feet	900 feet
80 gpm or larger		2,400 feet	1200 feet

B. Hickory, Ellenburger-San Saba, Marble Falls, Welge-Lion Mountain, Granite, and Other Non-Trinity Aquifers

The following well spacing requirements shall apply to wells completed in any layer of the Hickory, Ellenburger-San Saba, Marble Falls, Welge-Lion Mountain, or Granite Aquifers, as such aquifers are described in the District Management Plan, current and previous versions of the State Water Plan, and the applicable numbered groundwater reports and other official publications of the Texas Water Development Board, and shall apply to wells completed in any other aquifer in the District that is not part of the Trinity Aquifer:

Well Capacity	**Minimum Tract Size**	**Spacing from Other Well Sites**	**Spacing from Property Line**
The maximum amount of water the well can actually produce as equipped in gallons per minute (gpm).	The minimum tract size (if platted after 9/1/2009) that is owned or controlled, in acres, which may be considered an appropriate site for a well of a specified capacity.	The minimum distance, in feet, that a new or substantially altered well or proposed well site may be located from a registered well or authorized well site that does or will produce water from the same subdivision of the same aquifer.	The minimum distance, in feet, that a new or substantially altered well or proposed well site may be located from the nearest property line or limit of control of the tract of land on which it is to be located.
17.36 gpm or less	Minimum Tract Size is 1 acre	100 feet	50 feet
More than 17.36 gpm but less than 30 gpm		150 feet	75 feet
More than 30 gpm but less than 40 gpm		300 feet	150 feet
40 gpm or larger but less than 80 gpm		600 feet	300 feet
80 gpm or larger		1,000 feet	500 feet

Central Texas Groundwater Conservation District

P.O. Box 870 • 225 South Pierce Street • Burnet, Texas 78611
Phone: 512-756-4900 • Fax:512-756-4997
Email: district@centraltexasgcd.org Website: www.centraltexasgcd.org

District to Complete

Grid # ______________________

District Well # ______________________

TEST HOLE/WELL REGISTRATION APPLICATION

APPLICATION TO BE COMPLETED AND SIGNED BY THE "WELL OWNER". "WELL OWNER" means the person who owns a possessory interest in: (1) the land upon which a well or well system is located or to be located; (2) the well or well system; or (3) the groundwater withdrawn from a well or well system. (An Authorized Agent of the Well Owner may be named in an executed Agent Authorization Form provided by the District.) **(A potential purchaser of the land, well/ system or groundwater is not the Well Owner)**

If ownership has not been updated in the records of the Burnet Central Appraisal District, proof of ownership must be provided to the District.

If the Well Owner is in a partnership, LTD, LLC, or other corporation please provide documentation that the person signing on the entity's behalf is a registered or authorized agent. The Texas Secretary of State maintains records on business entities and the Texas Comptroller's office has a search available to obtain this information from the following web site https://mycpa.cpa.state.tx.us/coa/

Well Owner: NMC Briggs Property Investors LLC

Mailing Address: 2225 High Lonesome, Leander, TX 78641

Email Address: shroffnp@gmail.com Phone: 512-825-8837

Contact if Different than Well Owner: LandHomesTexas

Mailing Address: 21040 Highland Knolls Dr Katy, TX 77450

Email Address: landhomestexas@gmail.com Phone: 346-746-7515

Registrant if other than Well Owner: ______________________ Phone: ______________
(If Registrant is other than the Well Owner, complete an Agent Authorization form available at the District Office or on the District Website)

Well Site Location (911 Address): Highway 183, Briggs, Tx 76527 City: ______________

Legal Description: Abs A0446 H.T. & B.R.R.Co., Tract 9, 113.985 Acres

Lot Size or # of Acres: 103.99 Property ID (*): 52626
(*As shown on Burnet Central Appraisal District Tax Statement or Property Search)

Latitude (if known): 30.855077° Longitude (if known): -97.911948

Proposed Usage Of Water From The Well - Mark All That Apply:

Domestic/Livestock ☐ Commercial ☐ Ag Irrigation ☐ Industrial ☐ Public Water Supply ☐

Estimated Annual Volume (if known) ______________________

Proposed Maximum **Pumping** Capacity, as equipped, in Gallons per Minute (gpm) - Mark One:

0 to 7 gpm (common for 10 ac or less) ☐ 7 to 17.36 gpm ■ 17.36 to 50 gpm ■ Greater than 50 gpm ☐

Description of each water bearing formation that will be explored (if known): ______________________

Single Well (Not connected to any other well or well system): ■

Multi-Well System (connected to one or more wells that will together provide the water use identified above): ☐

Number of wells currently on this tract: ____________ If any of the wells are associated with a District Operating Permit provide the Operating Permit Number: ______________________

If the groundwater withdrawn from this well will be used in a location different from the well site address please explain:

____

Drilling Company: The Well Guy

Pump Installer: Jaime Beltran

Is this a replacement well? No If yes, what will be the status of the old well?

Capped ☐ Plugged ☐ In use (Explain): ______________________________

Estimated Drilling Date: TBD Proposed Drilling Method: AIR

Applicant Agrees to the Following:

For each test hole that is drilled pursuant to District Rules that is selected for completion, the authorization holder will comply with all applicable well completion, spacing, registration and permitting requirements provided for in the rules. For each test hole that is drilled and not completed, the well will be sealed in a manner that complies with the requirements of the District Rules.

Water produced/withdrawn from the proposed well will be put to beneficial use at all times.

If the well is located in a flood prone area, the well will comply with the applicable Rules of the Texas Department of Licensing and Regulation ("TDLR") (16, Tex. Admin. Code, § 76.1000).

Well spacing requirements of the TDLR (16, Tex. Admin. Code, Chapter 76) and the District Rules will be followed.

If a Water Well Closure Plan is not attached in the case that this well would ever fail or become inactive, I will comply with (all applicable TDLR rules) for well closure (16, Tex. Admin. Code, Chapter 76) and that I will report closure of the well to the District.

District staff may inspect a well or well location. Property access for inspections is authorized by Section 36.123 of the Texas Water Code, and District Rule 8.1.

Local property restrictions including but not limited to city ordinances, deed restrictions, HOA or POA rules, utility districts, and municipal districts may have restrictions on drilling and operating wells. It is your responsibility to comply with your local property restrictions regarding the drilling of wells. The permits and/or drilling authorizations issued by the Central Texas Groundwater Conservation District do not confer any right to violate any local property restrictions.

The information given herein is true and accurate to the best of my knowledge and belief and that I will comply with the Central Texas Groundwater Conservation District Rules and Management Plan. I further agree that if any change is made to the well, the pump, or the use of the water that would change the exempt or non-exempt status of this well, I will notify the District prior to making the change.

Well Owner Signature: ______________________________ ______________________________

Printed Name

Date: ______________________________ *The Signature on this Application must be that of the Well Owner as defined by the District Rules or the Authorized Agent of the Well Owner named in an executed Agent Authorization Form received by the District.*

THE STATE OF TEXAS §
§
COUNTY OF BURNET §

BEFORE ME, the undersigned authority, on this day personally appeared ______________________________, who being first duly sworn, stated that each and all of the foregoing application responses are true and correct.

SUBSCRIBED AND SWORN TO on the __________ day of ___________________________, 20________.

____

Notary Public, State of Texas

My Commission Expires: ______________________

PRESENTATION AND EVALUATION
OF
WELL SURVEY, PROPOSED WELL LOCATION
AND WELL DESIGN

Location: BRIGGS PROPERTY, US HWY #183,
BERTRAM, TX 78605

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Base from the well survey conducted last December 13-16, 2024

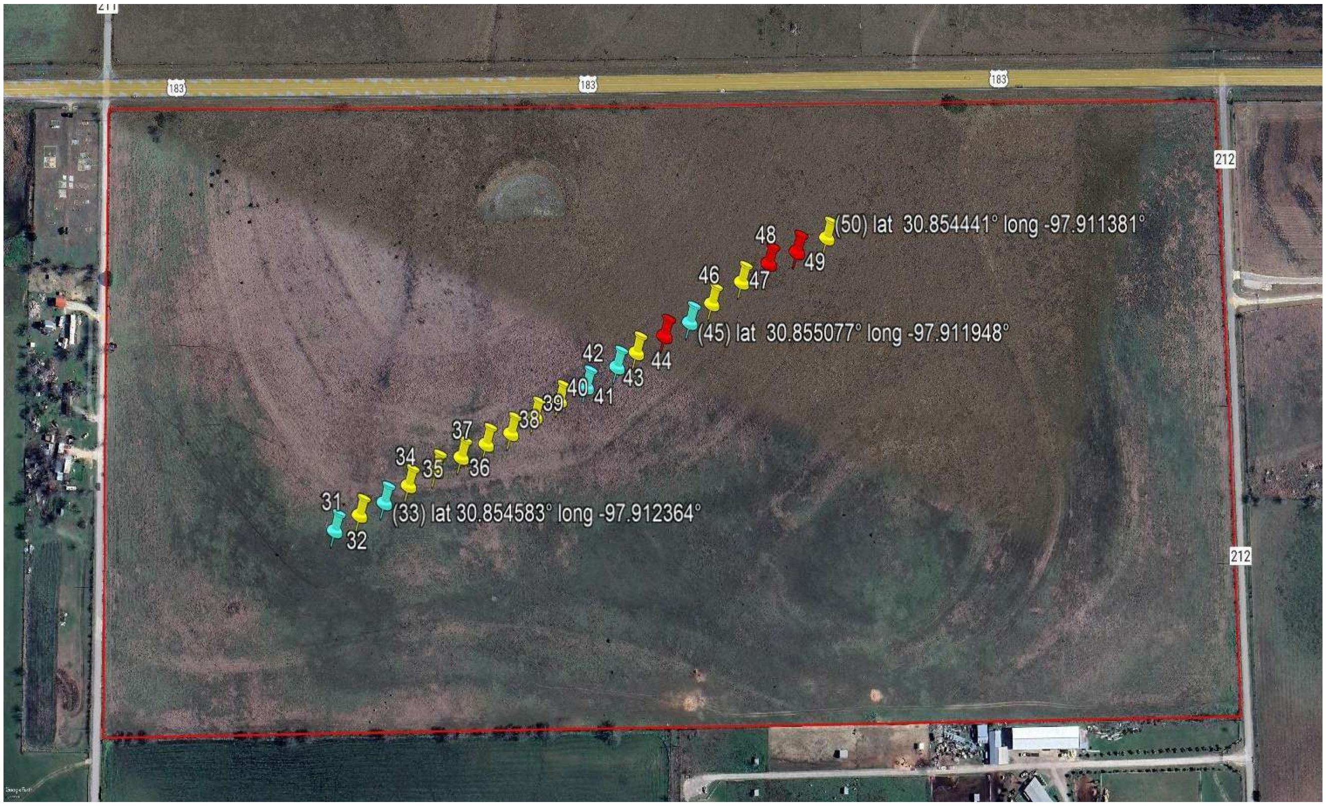
Figure 1. Site location and Seismoelectric sounding locations

The survey provides 20 seismoelectric sounding location (site), starting with site 31 to site 50. In which the survey arrives with the following reslts:

SUMMARY and CONCLUSIONS

The interpretation of the data indicates that potential groundwater is observed at the sites indicated. The estimated depth for the aquifer is between about 550 and 575 feet bgs and the estimated yields listed between low Category D (8-15gpm) to Category E (12-25gpm).

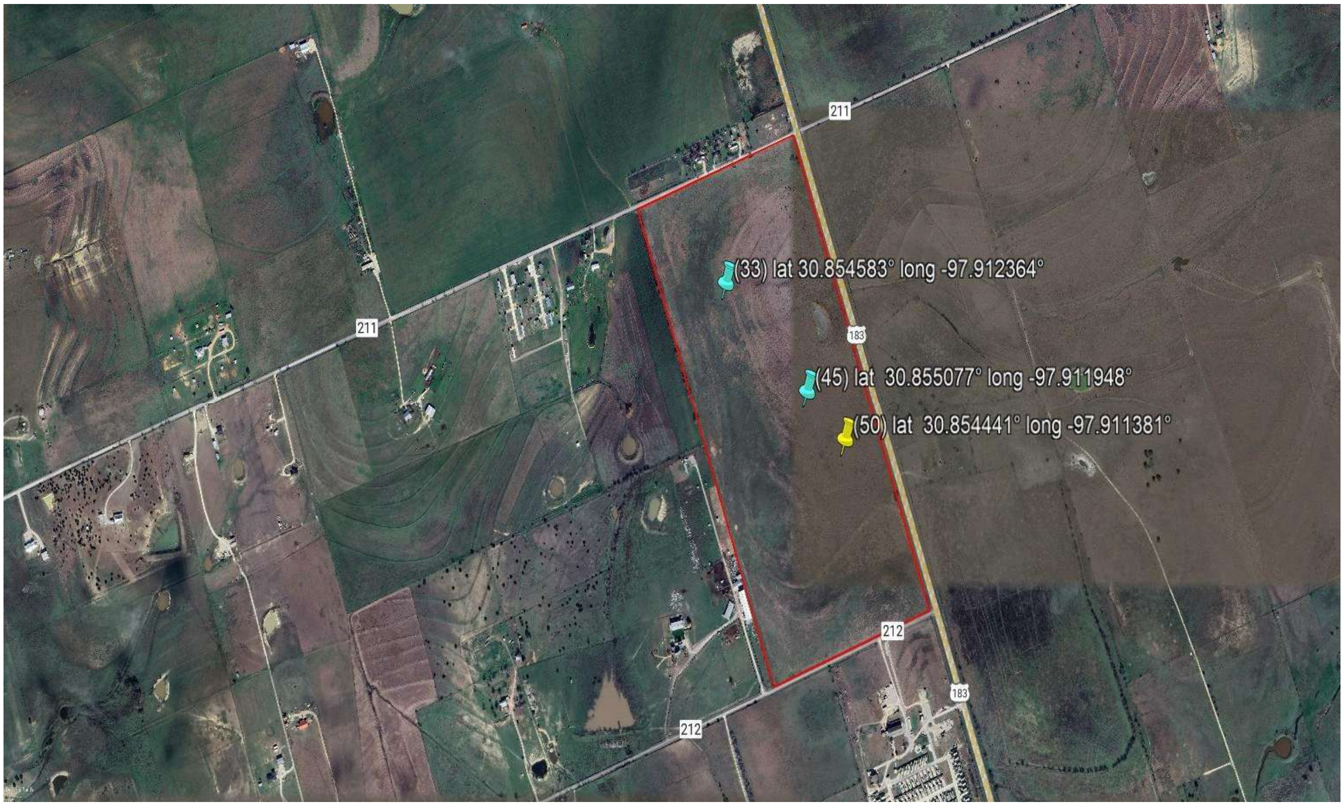
Base from well survey



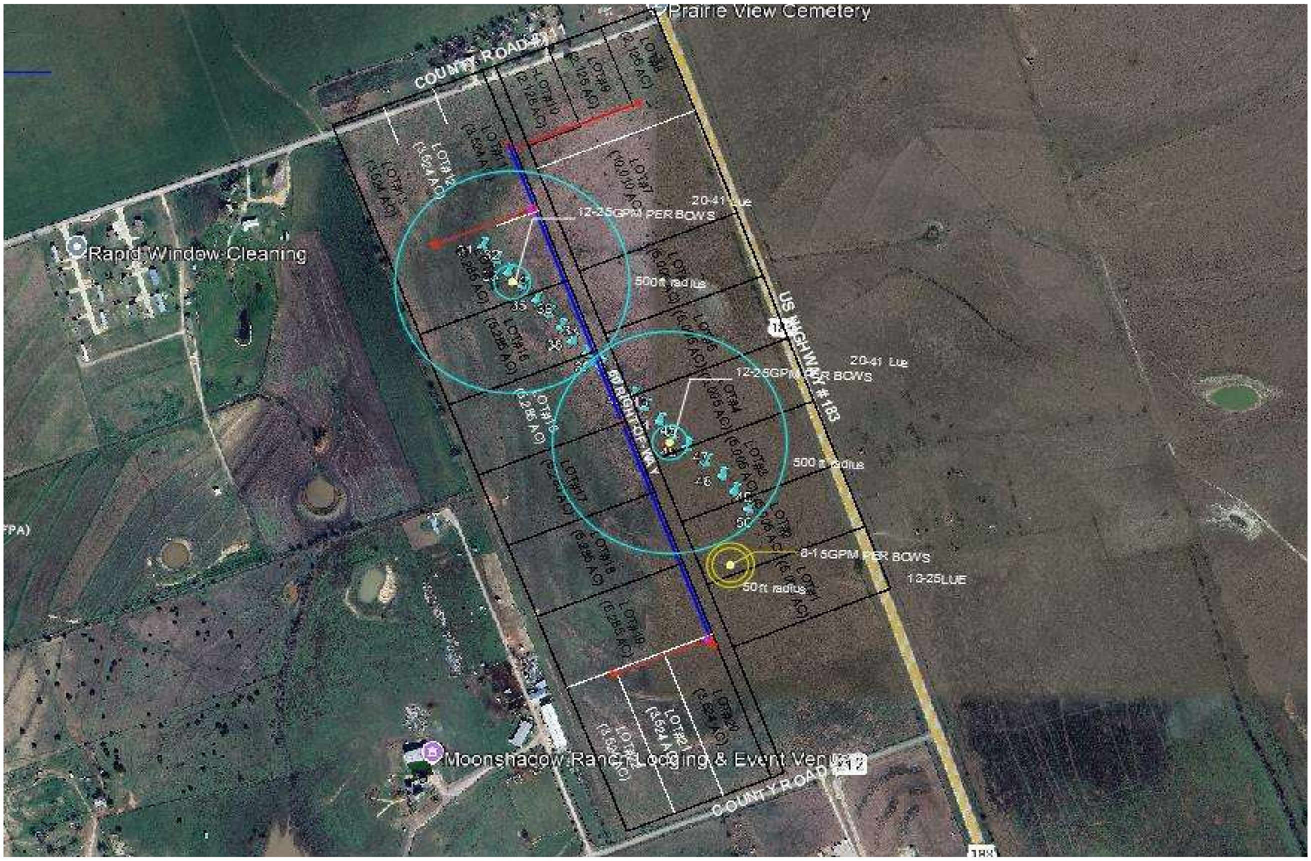
The following site are colored base from the given data according to the well survey

Cyan – Category E (12-25gpm), Yellow – Category D (8-15gpm), Red – an aquifer was not conclusively detected

There are three proposed well location base on TWDB rules and regulations.



Note that the location of the well to be drilled may not be the same as the location of the given site survey but can be adjusted to the nearest location base on the layout of road and the division of lots.

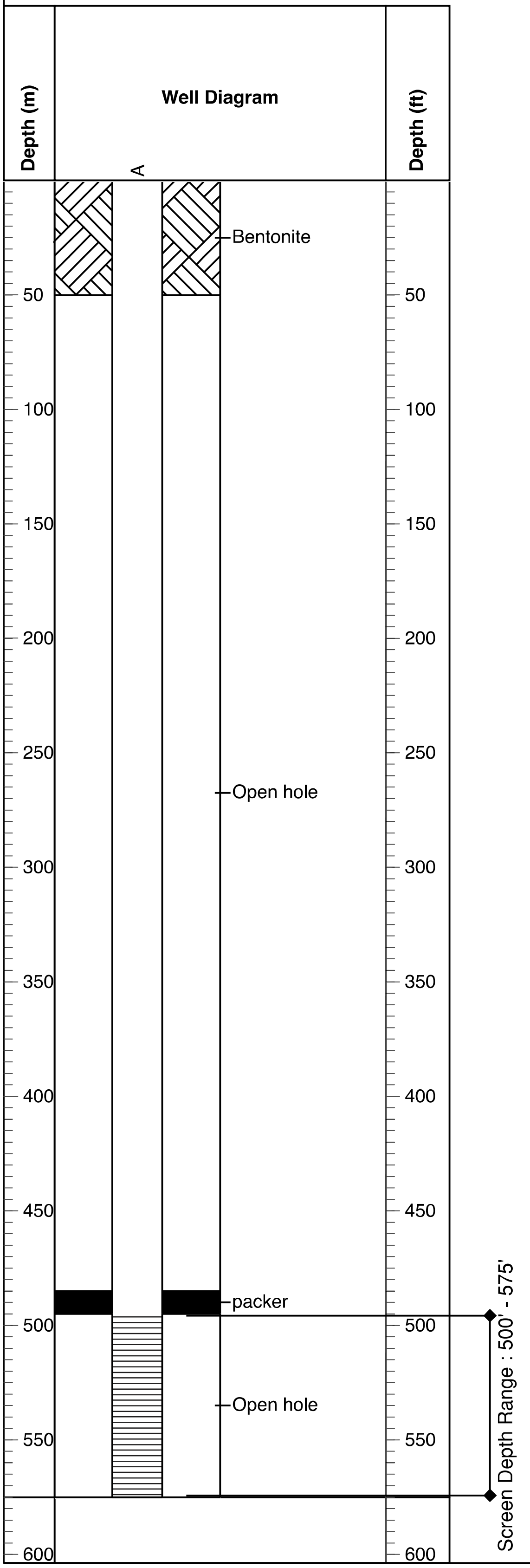


These three wells can produce a combined capacity of 32gpm to 65gpm with a combined number of LUEs of 53 to 107. Below is the well design recommended for Briggs Property.

Borehole Design

PROJECT NUMBER	**DRILLING DATE**	**COORDINATES**
PROJECT NAME Briggs Site	**TOTAL DEPTH** 575	**COORD SYS**
CLIENT	**DIAMETER** 8 Inches	**COMPLETION**
ADDRESS	**CASING** PVC	**SURFACE ELEVATION**
LICENCE NO.	**SCREEN** PVC Factory Slotted	**WELL TOC**

COMMENTS Proper borehole development is critical



Well development should include surging until the extracted water is sand free. Then a 8 or more hour pump test should be completed to best determine sustainable yield and pump sizing.

The screen should be placed only in the path of the confirmed permeable zone. Proper analysis of the cuttings will help identify the permeable zone.