


TDLR WWD/PI Laws and Rules



TEXAS DEPARTMENT OF
LICENSING & REGULATION





Water Well Driller and Pump Installer Program (WWD/PI)

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Customer Service: cs.water.well@tdlr.texas.gov





Primary Goals of the Program

- ✓ **Groundwater Protection!!**
- ✓ **License qualified Drillers and Pump Installers**
- ✓ **Establish and Enforce MINIMUM Well Construction, Well Plugging, and Pump Installation Standards**
- ✓ **Administration of the Abandoned Well Notification and Enforcement Program**
- ✓ **Regulation through Cooperation with State and Federal Agencies and Local Governments**

Renew a License

Apply for a License

Manage Your License

Regulated Industries ▾

Continuing Education

Contact Us

Laws and Rules

Open Meetings

Employment

Commission

Complaints and Enforcement

Email Updates



Hire a Licensed Air Conditioning Contractor

Protect yourself by hiring licensed contractors to work on your home. Search our online database and verify that your contractor is licensed with TDLR.

LEARN MORE

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HELP?

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Water Well Driller/Pump Installer Web Page

Renew Your License

- Renew Your Driller or Installer License
- Renew an Apprentice Registration

Continuing Education

- Continuing Education for WWD / PI
- Lookup Your Completed Courses
- Provider Approval

Apply for a New License

- Apply for a Driller or Installer License
- Apply for an Apprentice Registration
- Exam Information

Complaints & Enforcement

- File A Complaint
- Search Disciplinary Actions
- Complaint Statistics
- Water Well Drillers Penalties and Sanctions
- Enforcement Plan
- Penalties and Sanctions
- Pay Penalties Online

Manage Your License

- Update Contact Info
- Order a Duplicate License

Water Well Driller/Pump Installer Web Page

Search Licenses

- [Search License](#)

Forms & Publications

- [Well Report Forms](#)
- [Licensing Forms](#)
- [Well Compliance](#)
- [Miscellaneous](#)

Laws & Administrative Rules

- [Texas Laws](#)
- [Rules and Regulations](#)

Advisory Council

- [Water Well Drillers Advisory Council](#)
- [Upcoming Meetings](#)
- [Past Meetings](#)
- [TDLR is a member of the Texas Groundwater Protection Committee](#)
- [Application for WWD Advisory Council](#)

News & Updates

- [Water Well Drillers and Pump Installers News and Updates](#)
- [Subscribe to Email Notifications](#)
- [Contact Us](#)

Well Driller/Pump Installer Website

- **Well Construction and Plugging Specifications**
- Water Well Driller Advisory Council Information
- **Well/Plugging Reports**
- Undesirable Water and Constituent Reports
- License Applications
- **Tex. Admin. Code Chapter 76 (Rules)**
- **Tex. Occupations Code Chapters 1901 (Drillers) & 1902 (Pump Installers)**
- Variance Request Forms
- Frequently Asked Questions (FAQs)
- Examination References
- **Report Violations/File Complaints**
- **Report Abandoned Wells**
- **Texas Well Report Submission and Retrieval System Link**
- **TCEQ Well Report Viewer (for wells drilled before 2003)**

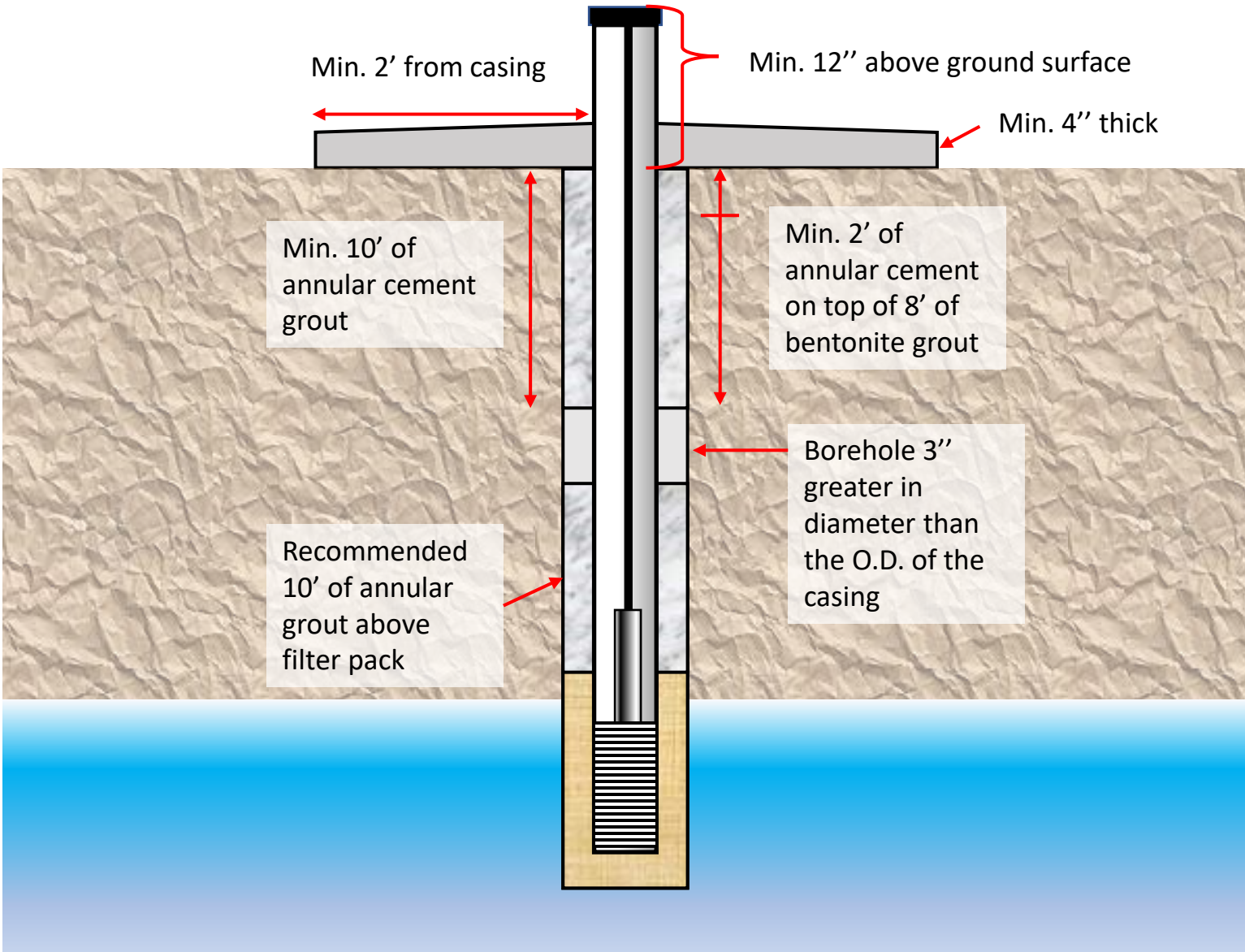




Well Construction



MINIMUM ANNULAR SEAL COMPLETION-SLAB

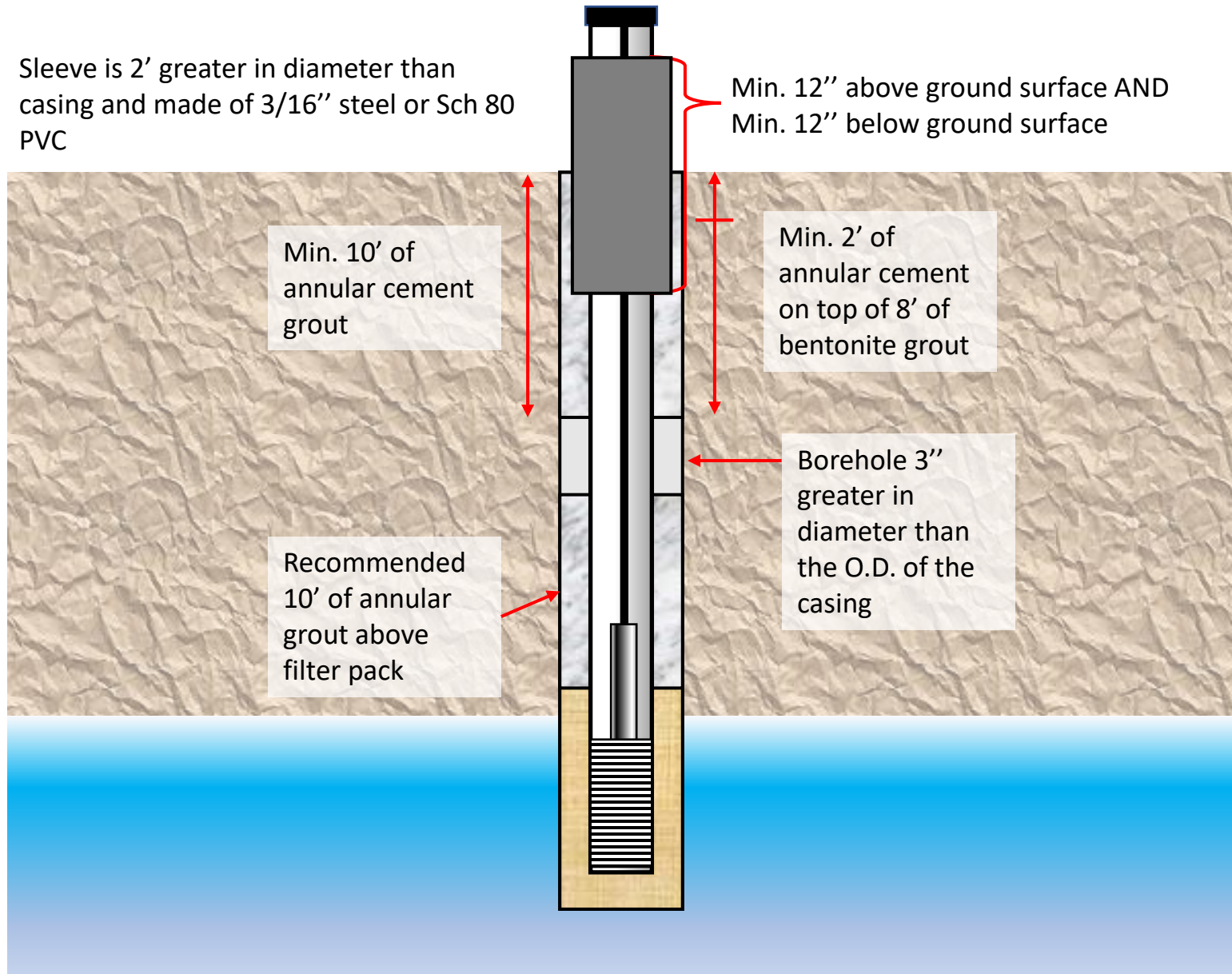


Proper Surface Completion



MINIMUM ANNULAR SEAL COMPLETION-SLEEVE

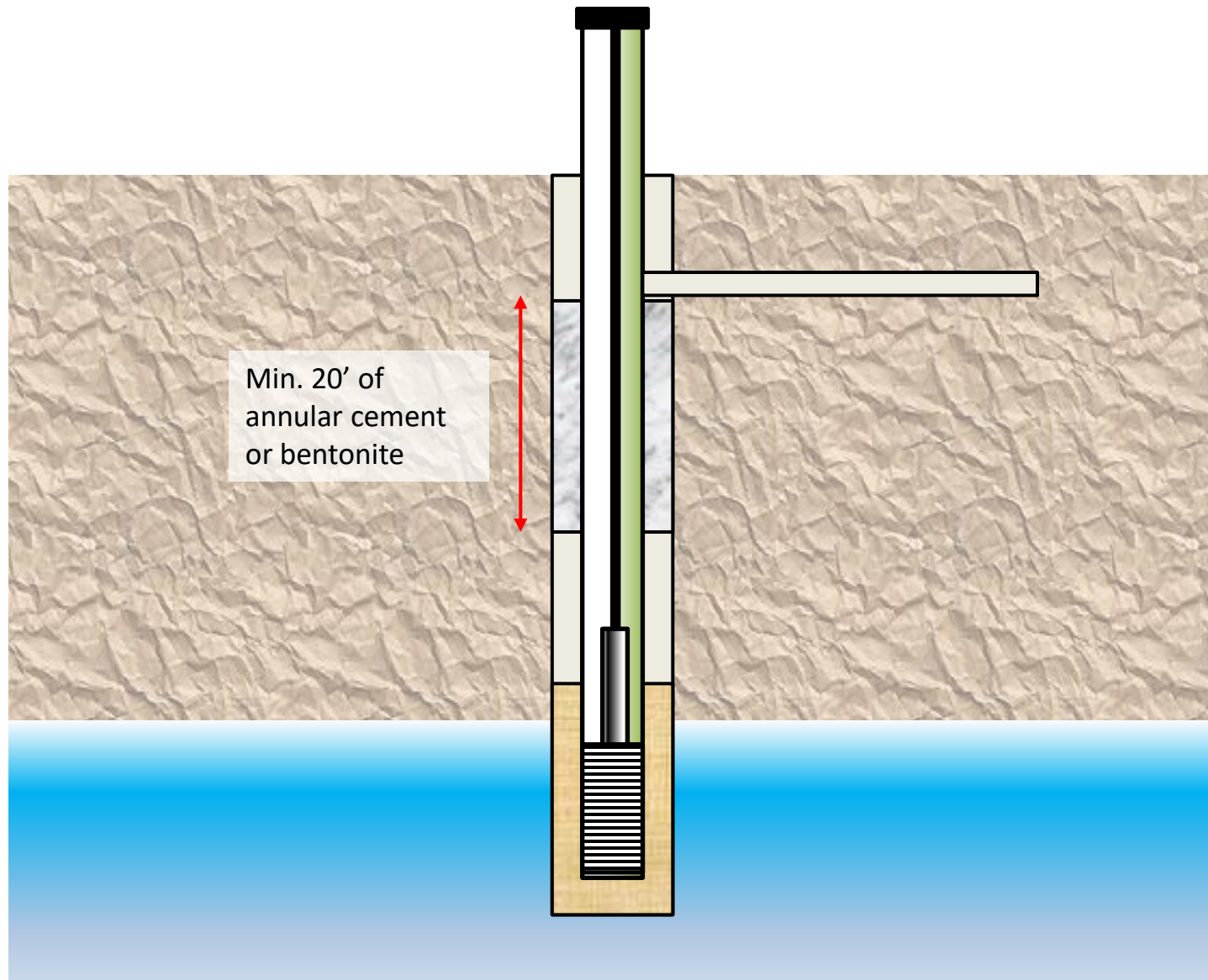
Sleeve is 2' greater in diameter than casing and made of 3/16" steel or Sch 80 PVC





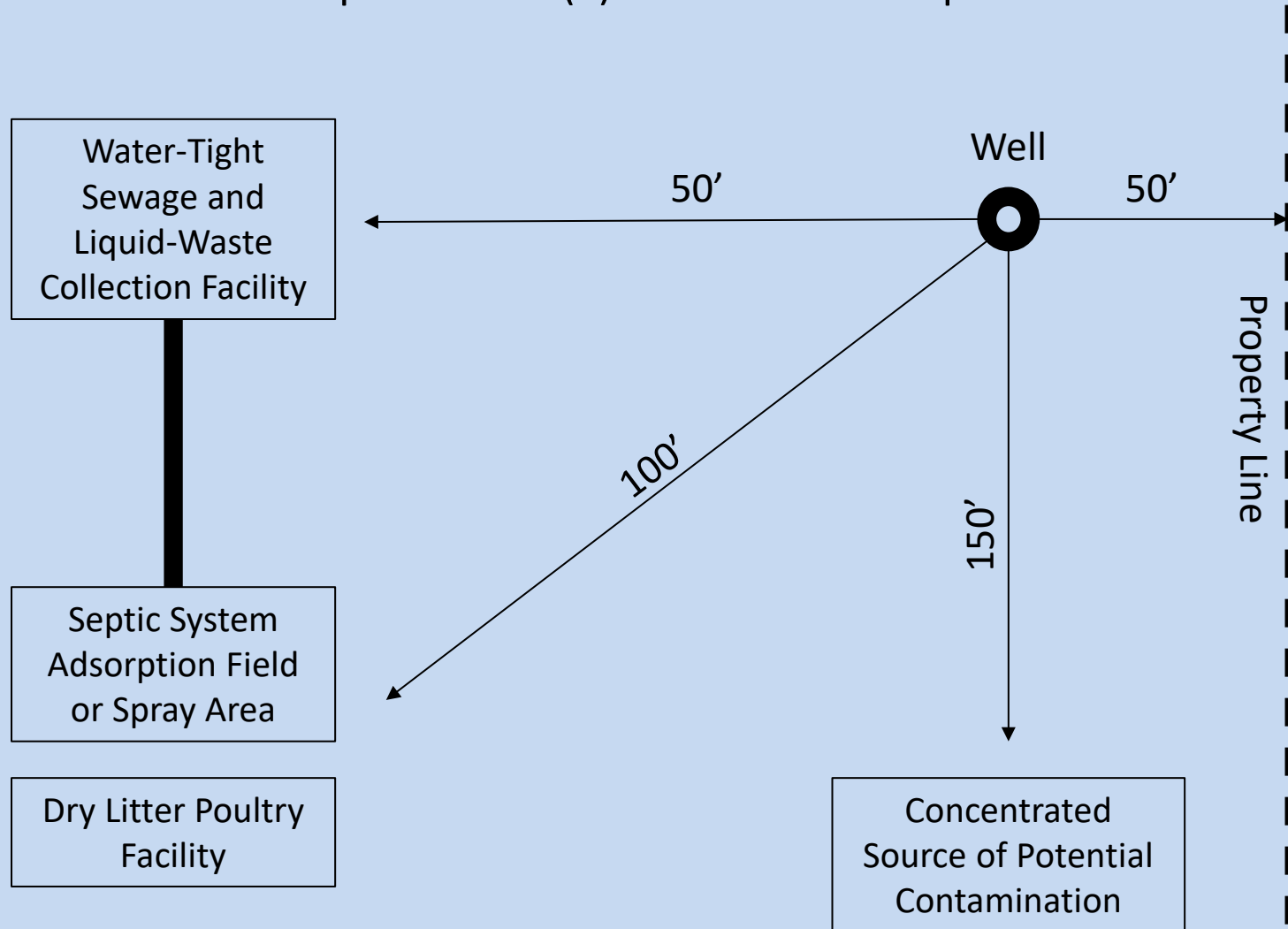
Proper Alternate Surface Completions

MINIMUM ANNULAR SEAL COMPLETION-PITLESS ADAPTER



Well Location

Chapter 76.100(a) – Minimum Completion

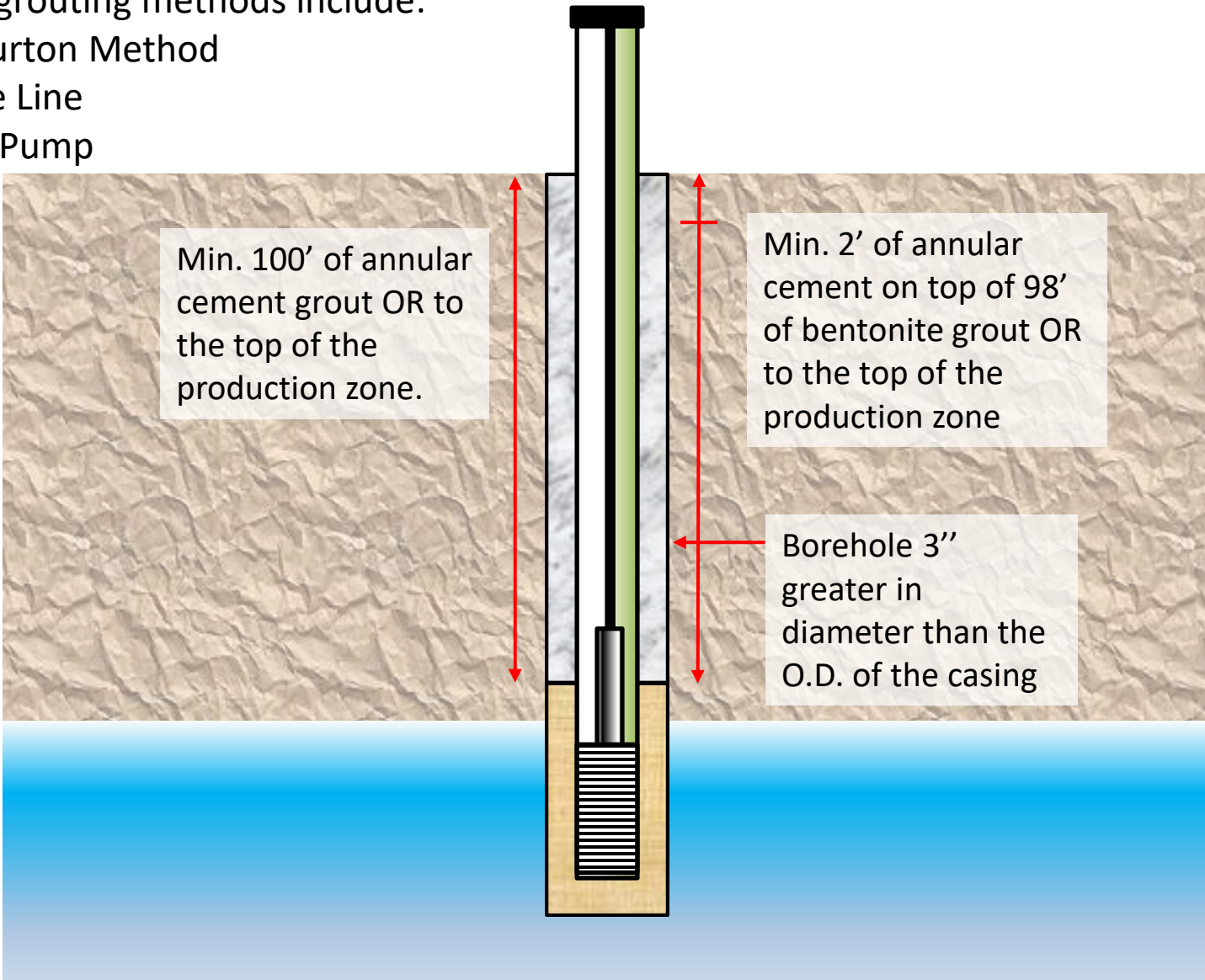


ALTERNATE ANNULAR SEAL - (100') COMPLETION

****MUST BE PRESSURE GROUTED****

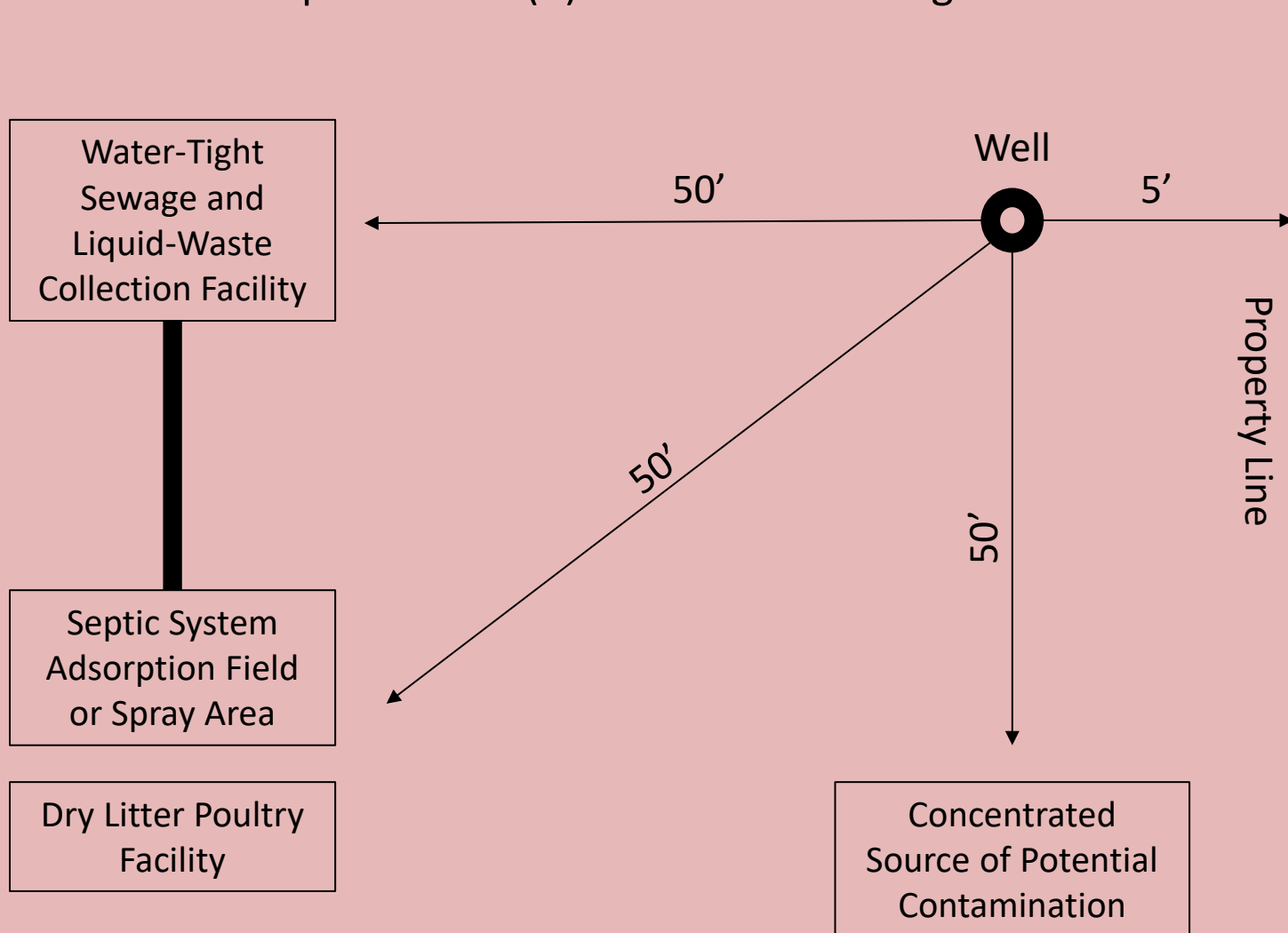
Pressure grouting methods include:

- Halliburton Method
- Tremie Line
- Grout Pump



Well Location

Chapter 76.100(b) – Alternative Siting Method





76.100 Exceptions To Property Line Distance Requirements

The following are exceptions to the property line distance requirement where:

(A) The well is located within a groundwater conservation district rules are in place regulating the spacing of wells;

(B) The well is located on property that has restrictions regulating the spacing of wells and on-site sewage systems are part of the planning; or

(C) Public wastewater treatment is provided and utilized by the landowner.

Flood- Prone Areas

76.100(a)(3) - A well shall be located at a site not generally subject to flooding; provided however, that if a well must be placed in a flood-prone area, it shall be completed with a watertight sanitary well seal, so as to maintain a junction between the casing and pump column, and a **steel sleeve extending a minimum of thirty-six (36) inches above ground level and twenty-four (24) inches below the ground surface.**



76.78
Responsibilities of the
Licensee
Adherence to
Manufacturer's
Recommended Well
Construction Materials
and Equipment

(a) Unless waived by the landowner, a licensee shall use a manufacturer's well screen, and select the correct slot size for the screen in the installation of a domestic (household use) or landscape irrigation water well **to prevent sand or sediment from entering the well.**

(b) The waiver must be on a department approved form, signed by the landowner or person having the well drilled and the driller, and presented to the landowner

(c) A licensee shall adhere to manufacturers' recommended pump sizing and wiring specifications.

(d) A licensee shall select the proper hydraulic collapse pressure for casing to be installed.

Manufactured Screen Waiver

1. Property Description or address where well is to be drilled pursuant to the attached contract:

2. Name of Property Owner (Owner): _____

3. _____
(Name of Driller) (Driller TDLR License Number)

4. The type of well to be drilled (check one):

Domestic Water Well
 Landscape Irrigation Water Well

Owner has read and understands Section 76.78 (a) Texas Administrative Code which states the following: (a) *Unless waived by the landowner, a licensee shall use a manufacturer's well screen, and select the correct slot size for the screen in the installation of a domestic (household use) or landscape irrigation water well.*

Owner waives the use of a manufacturer's well screen, pursuant to Section 76.78(a), and consents to the use by the licensee of a hand-perforated PVC or Steel pipe as determined to be appropriate.

Date: _____ Date: _____

Signature of Driller

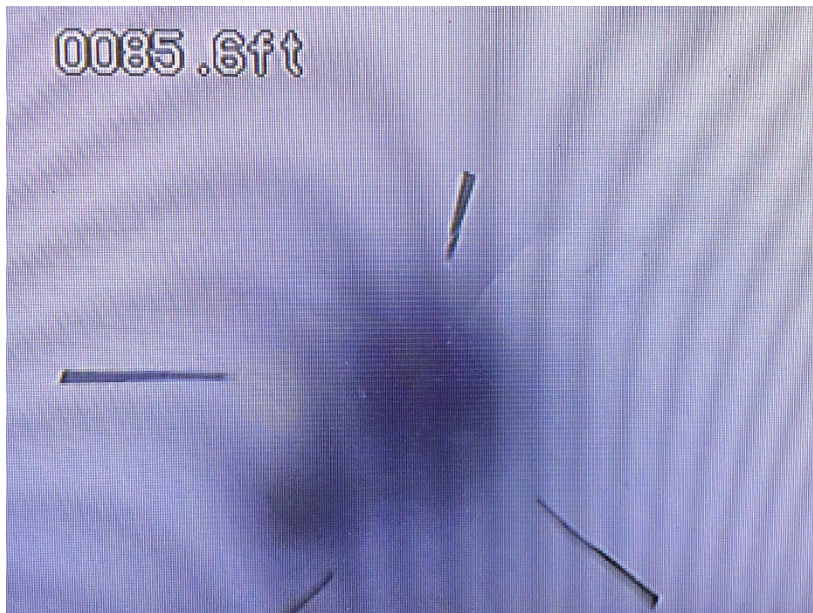
Signature of Owner, (or Person having well drilled,
if authorized by Owner)

Printed Name

Printed Name




0085 .6ft



0109 .0ft





76.100(d)(2) Approved casing materials

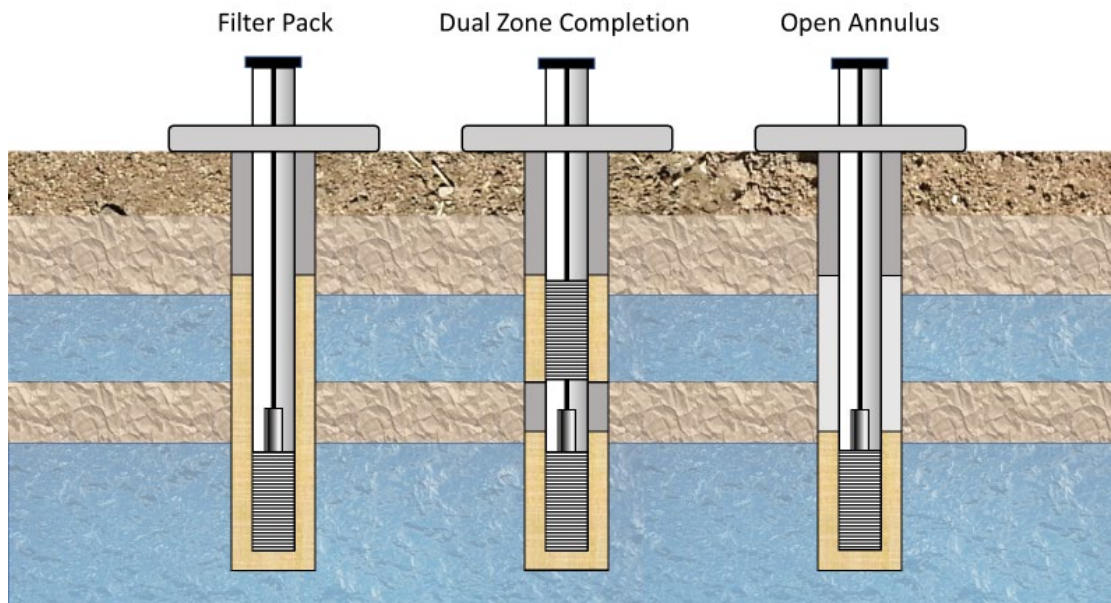
(A) **Plastic casing**--National Sanitation Foundation (WSF-WC) or American Society of Testing Material (ASTM) F-480 minimum SDR 26 approved water well casing;

(B) **Steel casing**--New ASTM A-53 Grade or better, and have a minimum weight and thickness of American National Standards Institute (ANSI) schedule 10; or


(C) **Fiberglass Casing**--National Sanitation Foundation sixty-one (NSF-61) and American Society of Testing Material (ASTM) D2996 approved Filament Wound fiberglass casing (Glass-Fiber-Reinforced Thermosetting-Resin pipe.)

(D) Monitoring wells may use other materials, such as flouropolymer (**Teflon**), **glass fiber reinforced epoxy**, or various **stainless steel alloys**;

76.100(c)(1) Commingling



All wells shall be completed so that **AQUIFERS OR ZONES** containing waters that differ in chemical quality are not allowed to commingle through the borehole casing annulus or the filter pack and cause quality degradation of any **AQUIFER OR ZONE**. When **AQUIFERS OR ZONES** of lesser quality are overlying the production zone, the borehole annulus shall be pressure grouted with bentonite or cement from the top of the production zone back to the surface unless the formations make total grouting impossible or impractical. In this case the entire borehole annulus which is groutable shall be grouted and sealed including proper surface annular grouting and completion.



76.71 Responsibilities of the Licensee Reporting Injurious Water or Constituents

Each well driller or installer shall, within **24 HOURS** of becoming aware of the existence of injurious water or constituents, inform the landowner or person having the well drilled, deepened, or otherwise altered. The well driller or installer shall, within **30 DAYS** of becoming aware of the existence of injurious water or constituents transmit electronically through the Texas Well Report Submission and Retrieval System or deliver or send by first class mail, the original of the Injurious Water or Constituents Report to the department. The well driller or installer shall also deliver or send by first class mail a copy of the Injurious Water or Constituent Report to the groundwater conservation district in which the well is located, if any, and the landowner or person having the well drilled, deepened, or altered.

76.101
Technical
Requirements
Standards of
Completion for
Water Wells
Encountering
Water Injurious to
Vegetation, Land or
Other Water

(a) Upon encountering water injurious to vegetation, land or other water, a drill or installer shall:

(1) Comply with the notification requirements of 1901.254 and 1902.254 of the Codes, and

(2) **As quickly as possible, plug, repair, or properly complete the well pursuant to the standards adopted by the commission in order to avoid injury or pollution.**

(b) The driller may, subject to the consent of the landowner or person having the well drilled, make the well into a completed monitoring well or into a well otherwise producing injurious water in accordance with 76.102.



76.101 Continued

(c) If a driller encounters injurious water and the well is not plugged or completed as a monitoring well or other well producing injurious water, the driller shall ensure that the well drilled, deepened or altered is completed quickly as possible.

(1) When injurious water is encountered in a water well, the injurious water shall be sealed off and confined to the zone(s) of origin. It is a defense to prosecution for violation of this section that the driller reasonably was not aware of having encountered injurious water.

(2) When Injurious water is encountered in a zone overlying a fresh water, the driller shall case the water well from the production zone back to land surface to ensure the protection of water quality.

(3) The annular space between the casing and the wall of the borehole shall be pressure grouted with positive displacement technique or the well is tremie pressure filled provided the annular space is three inches larger than the casing with cement or bentonite grout from the production to land surface to ensure the protection of groundwater. Bentonite grout may not be used if a water zone contains chlorides above one thousand five hundred (1,500) parts per million (milligrams per liter) or if hydrocarbons are present.

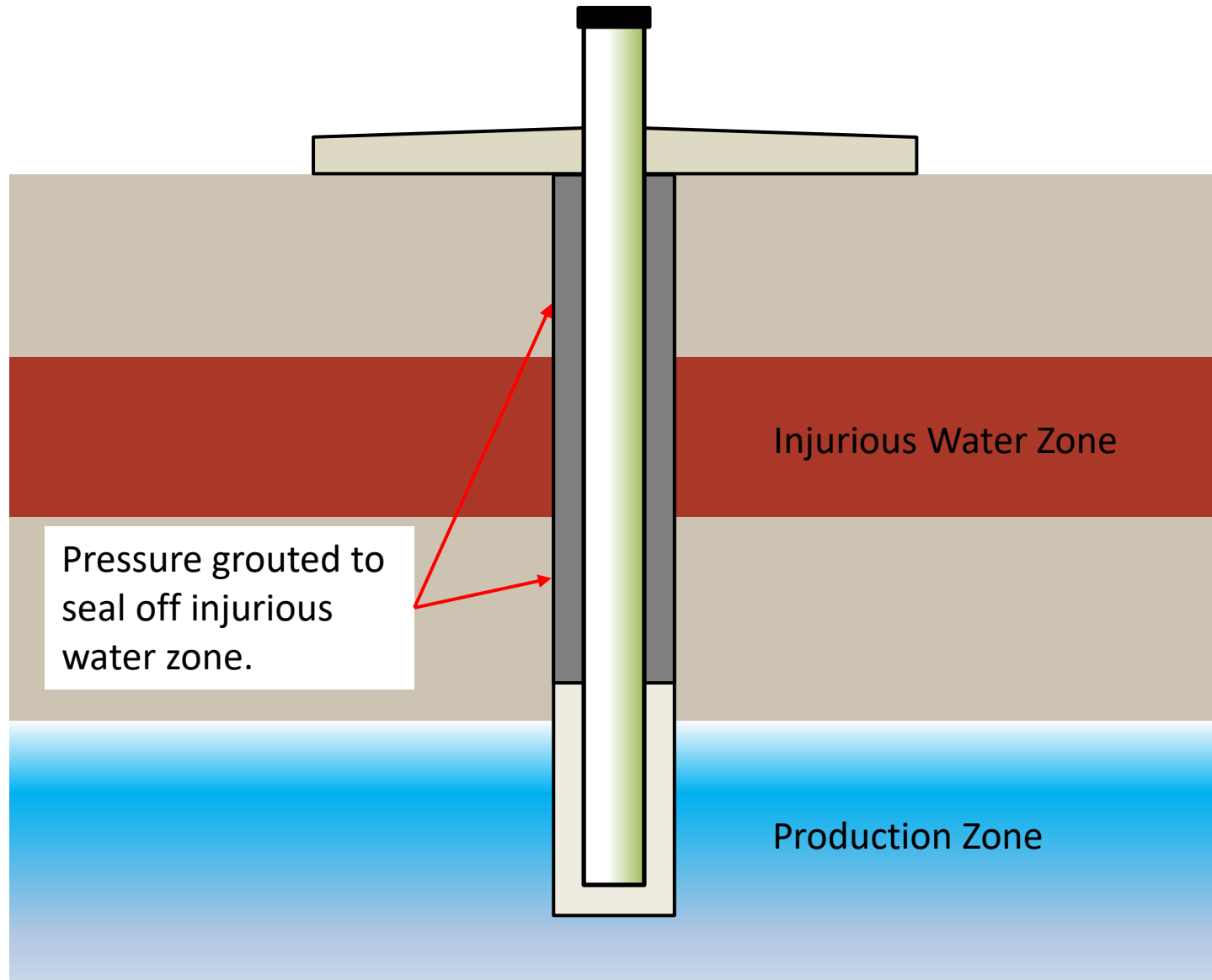
76.102
Technical
Requirements--
Standards for Wells
Producing Water
Injurious to
Vegetation, Land or
Other Water

(a) Wells completed to produce injurious water shall be cased to prevent the mixing of water or constituent zones.

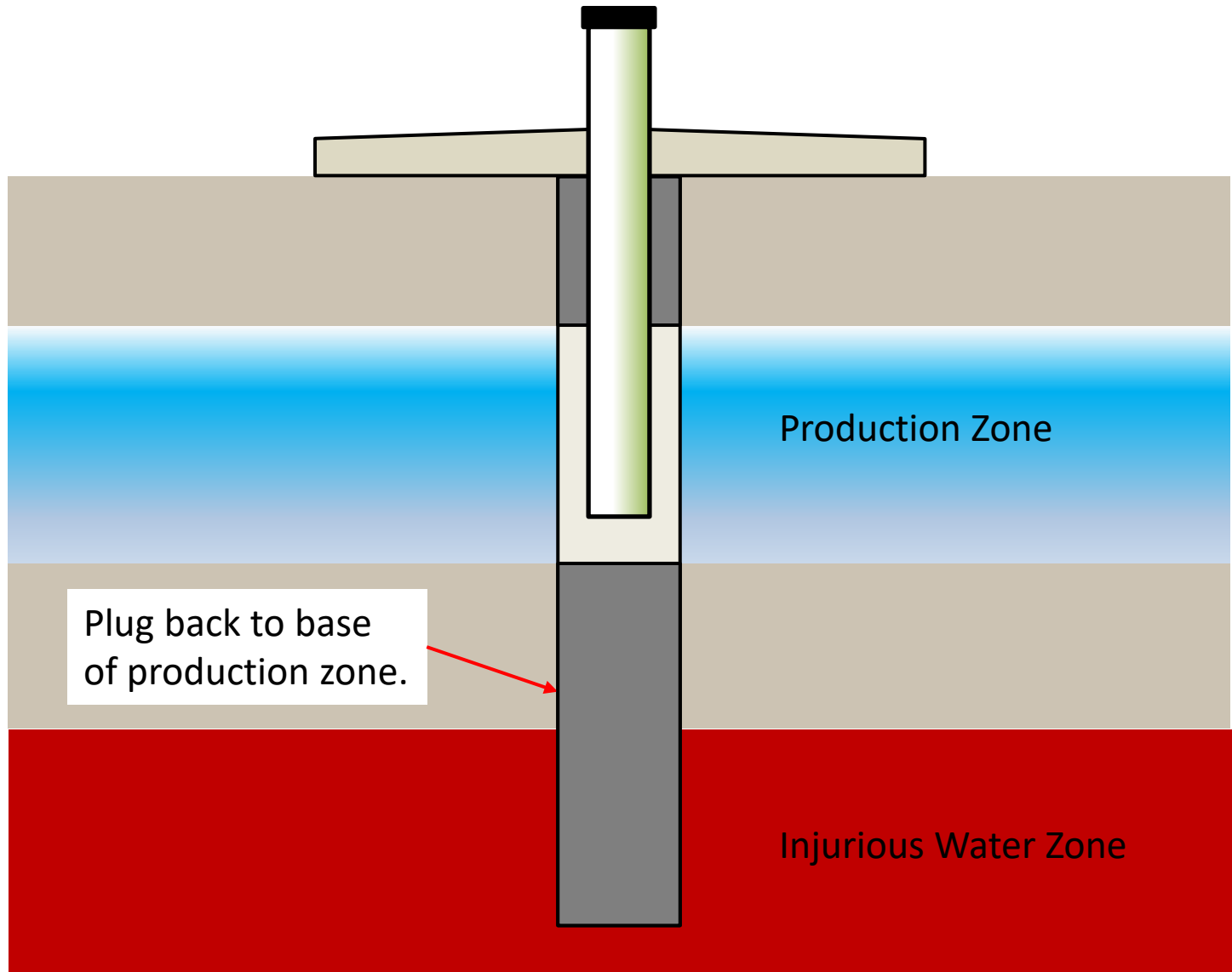
(b) The annular space between the casing and the wall of the borehole shall be pressured grouted with cement or bentonite grout to the land surface. Bentonite grout may not be used if a water zone contains chloride water above one thousand five hundred (1,500) parts per million (milligrams per liter) or if hydrocarbons are present.

(c) Wells producing injurious water shall be completed in such a manner that will not allow injurious fluids to flow onto the land surface.

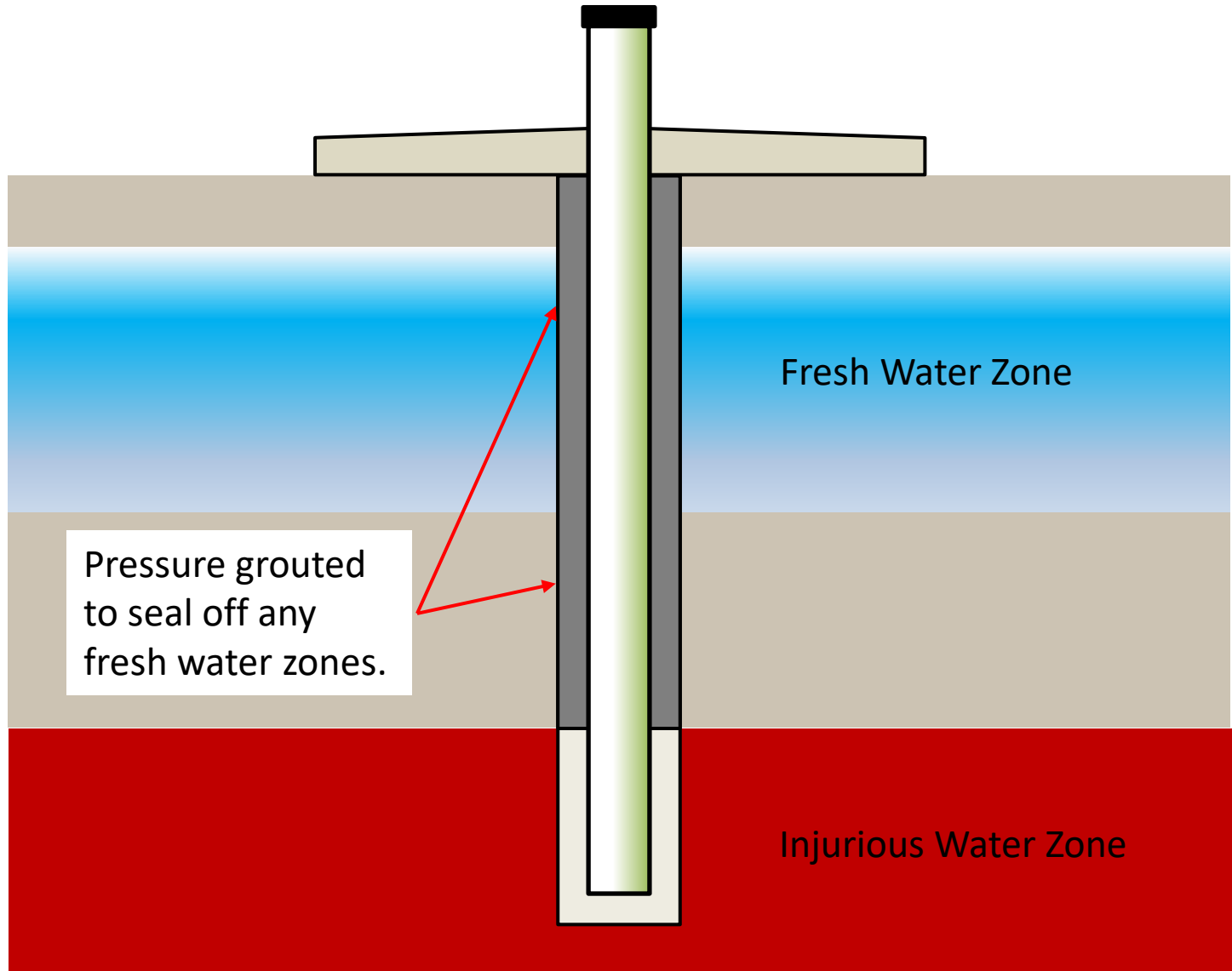
Injurious Water Overlying Fresh Water 76.101(c)(1-3)



Fresh Water Overlying Injurious Water 76.101(c)(4)



Completion Standards For Wells Producing Injurious Water 76.102





76.72 - Responsibilities of the Licensee and Landowner Well Drilling, Completion, Capping and Plugging

(a) All well drillers, installers and persons having a well drilled, deepened or altered, and persons in possession of an abandoned or deteriorated wells, shall adhere to the provisions of the Codes and this chapter prescribing the location of wells and proper drilling, completion, capping and plugging.

(b) A licensed driller shall ensure that when injurious water or constituents are knowingly encountered, the well is plugged or is converted into a properly completed monitoring well as defined in 76.10 (33), and under the standards set forth in 76.104.

(c) A driller must comply with applicable requirements of the Texas Commission of Environmental Quality rules under 30 TAC, Chapter 331, if injurious water or constituents are encountered while drilling a Class V Injections well.

76.72 – Cont.

(d) If a landowner, or person having the well drilled, deepened or altered refuses to allow a licensed driller or installer access to the well which requires plugging or completion or otherwise precludes the driller or installer from plugging or completing the **well where injurious constituents or water have been encountered, the driller shall, within 48 HOURS of refusal, file a signed statement to that effect with the department and provide a copy of the statement to the local groundwater conservation district.** The statement shall indicate that:

(1) The driller, installer or person under his supervision, encountered injurious water or constituents while drilling the well;

(2) The driller or installer has informed the person having the well drilled, deepened or otherwise altered that injurious water or constituents were encountered and that the well must be plugged or completed pursuant to 1901.254 or 1902.253 of the Codes , and this chapter.

(3) The person or landowner having the well drilled, deepened or altered has denied the driller or installer access the well;

(4) The reason, if known, for which access has been denied, and

(5) If known, whether the person having the well drilled, deepened or otherwise altered intends to have the well plugged or completed.


76.72 – Cont.

(e) **A deteriorated well must be plugged. An abandoned well must be either capped or plugged.** If a landowner or person who possesses an abandoned or deteriorated well fails to have the well plugged or capped under standards and procedures adopted by the commission within **180 days** from learning of its condition, the department shall notify the local groundwater conservation district and the department may initiate a contested case against the landowner or person for a violation of 1901.255 of the Code.

(f) It is the responsibility of a landowner or person in possession of a well that is **open at the surface**, to have the well capped under standards set forth in 76.104.

(g) the driller of a newly drilled well shall place a **cover or cap** which is not easily removed over the boring or casing if the well is intended to be left unattended without a pump installed. It shall be the responsibility of the pump installer to place a cover or cap over the casing which is not easily removable if the well is intended to be left unattended with the pump removed.

IF YOU LEAVE THE WELL SITE FOR ANY AMOUNT OF TIME, DO NOT LEAVE A WELL UNCAPPED



Abandoned and Deteriorated Wells

Threat to groundwater quality,
humans, and the environment.

Over 100,000 estimated in the
State of Texas.





§290.46(u)
Abandoned
wells.

§290.46(u) Abandoned wells.

Abandoned public water supply wells owned by the system must be plugged with cement according to 16 TAC Chapter 76 (relating to Water Well Driller and Water Well Pump Installers). Wells that are not in use and are non-deteriorated as defined in those rules **must be tested every five years or as required by the executive director to prove that they are in a non-deteriorated condition.** The test results shall be sent to the executive director for review and approval. Deteriorated wells must be either plugged with cement or repaired to a non-deteriorated condition.

§ 1901.255 Abandoned and Deteriorated Wells

An **abandoned well** is a well that is not in use.

A **deteriorated well** is a well that because of its condition, will cause or is likely to cause pollution of any water in this State, including groundwater.

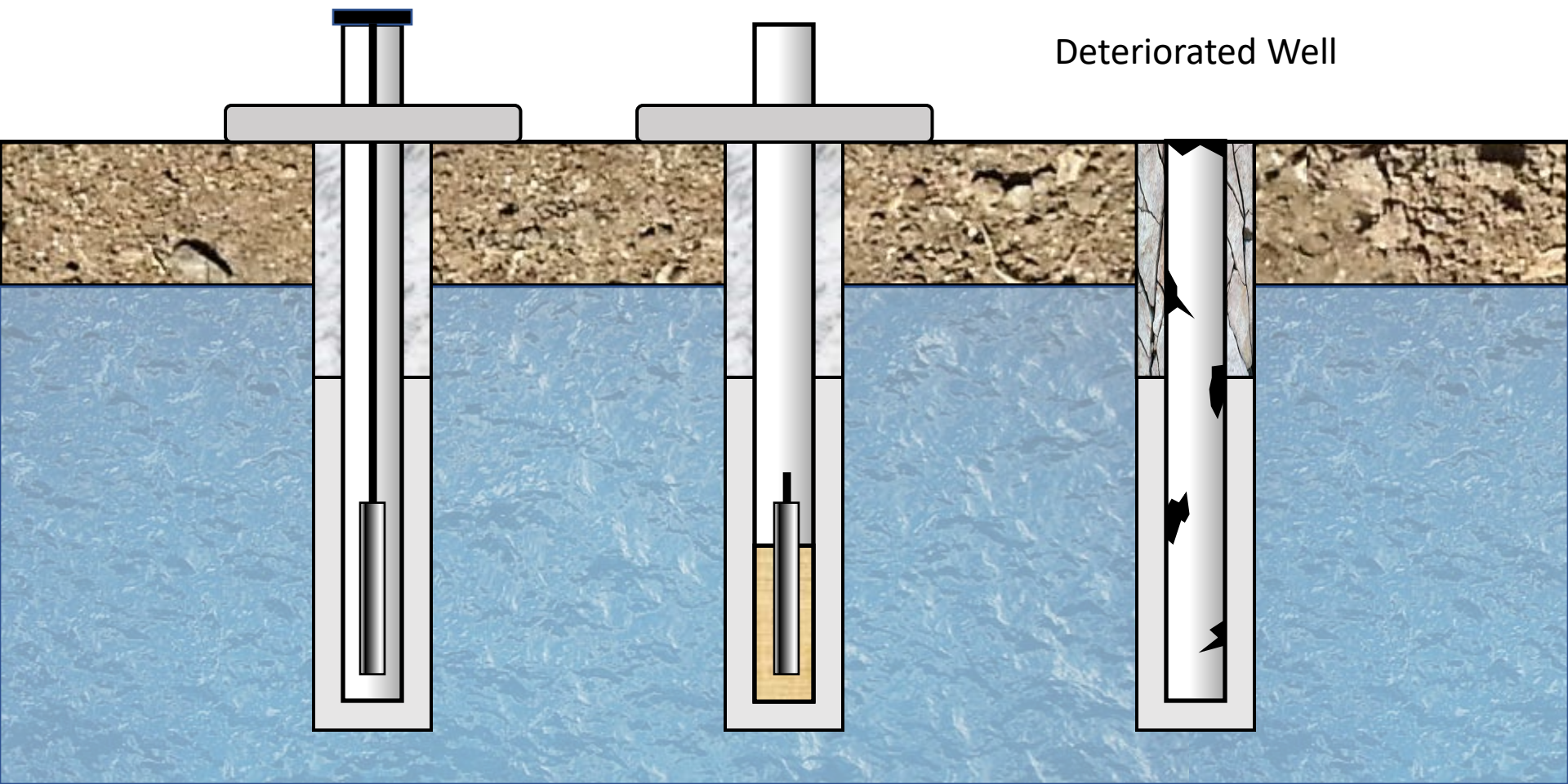
A well is considered to be in use in the following cases:

- the well is not a deteriorated well and contains the casing, pump, and pump column in good condition;
- the well is not a deteriorated well and has been properly capped;
- the well is used in the normal course and scope and with the intensity and frequency of other similar users in the general community; or
- the owner is participating in the Conservation Reserve Program or similar governmental program.

Working Well

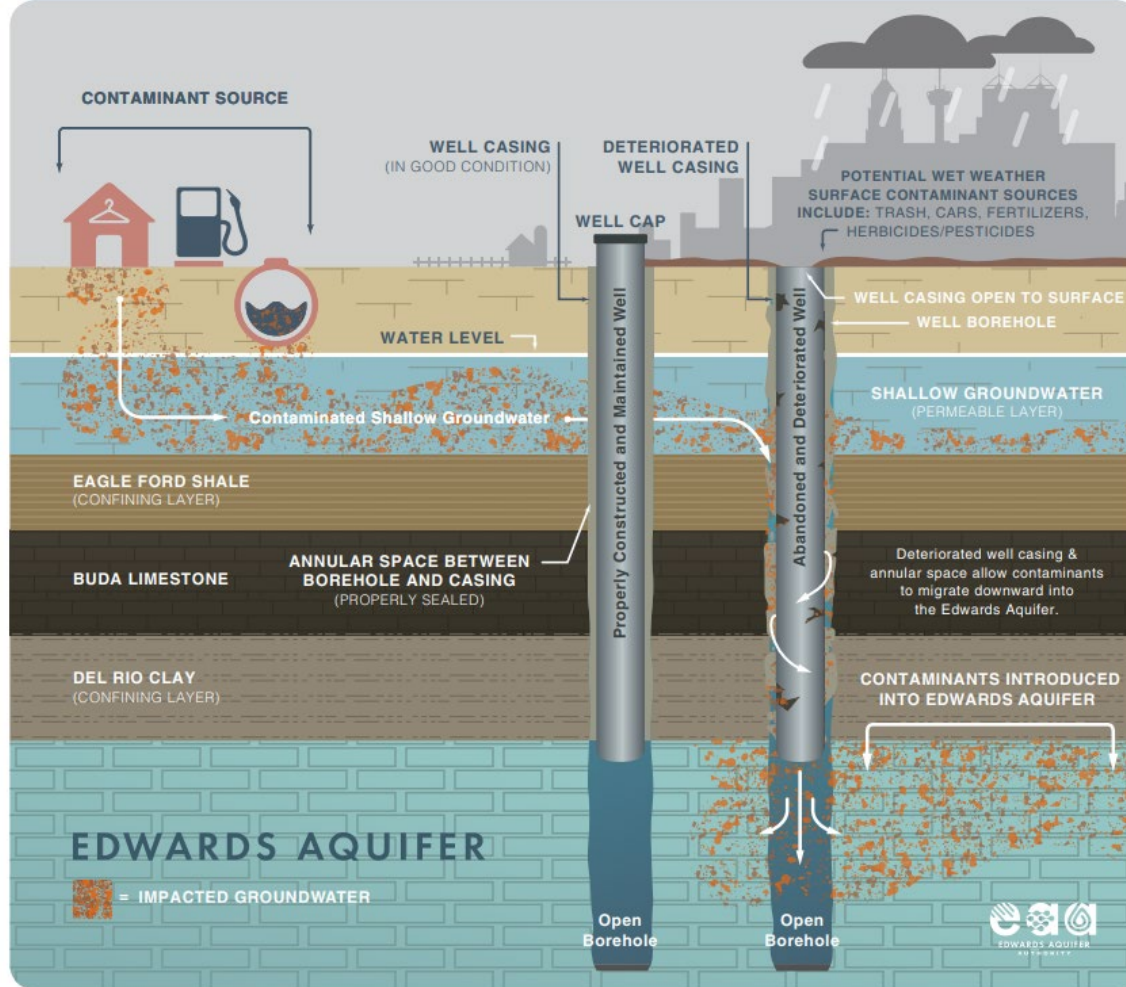
Abandoned Well

Deteriorated Well



POTENTIAL FOR EDWARDS AQUIFER GROUNDWATER CONTAMINATION

Abandoned and Deteriorated Wells





Examples of
Abandoned and
Deteriorated Wells



4-year-old rescued after falling down 44-foot Texas well

The young boy fell down nine feet of a 44-foot deep well hole in Garceno, Texas, and was rescued after an hours-long operation that involved a vacuum.

5-year-old boy dies after being trapped in well for four days, Morocco's king says

UPDATED ON: FEBRUARY 5, 2022 / 4:30 PM / CBS/AP





Driller and/or Pump Installer Responsibilities

Texas Occupations Code Chapters 1901 and 1902 requires:

Each licensed driller or pump installer who knows of an abandoned or deteriorated well shall notify the landowner or person possessing the well that well must be plugged or capped in order to avoid injury or pollution.

The 16 TEX. ADMIN. CODE Ch. 76 Rules specify well re-completion standards if the landowner intends on keeping and using a well in this category.

Plugging, Capping Or Re-completion Operations

The abandoned and/or deteriorated well(s) must be plugged, capped or re-completed by a licensed driller, licensed pump installer or the landowner themselves.

Plugging of Wells

Chapter 76.104

Well Plugging Specifications

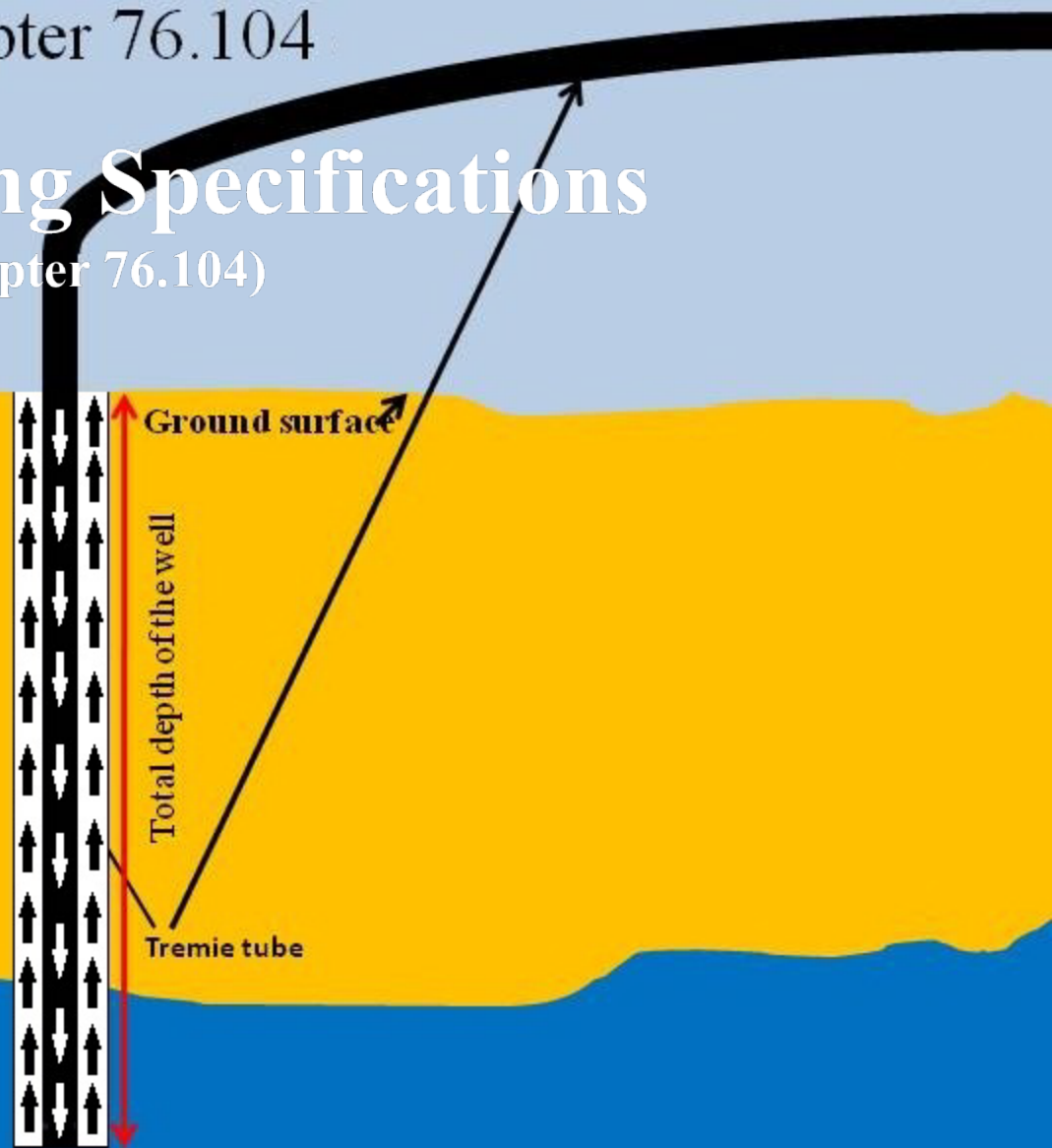
(Chapter 76.104)

Remove all removable casing
Remove existing surface completion
Pressure cement the well from bottom to top.

•ALTERNATIVE METHOD

*Pressure grout bentonite slurry (10lb per gallon or more or with a march funnel viscosity of 50 seconds or equivalent). Followed by a cement plug from land surface to a depth of not less than two (2) feet.

*Bentonite chips or pellets can be use if there is one hundred (100) feet or less of standing water.



Dry Holes

Chapter 76.104 (c)

- Wells which do not encounter groundwater (dry holes) may be plugged by backfilling with drill cuttings from total depth to the surface. The backfill material shall be mounded above the surrounding surface to compensate for settling.



Grandfathered Wells

Chapter 76.105

Wells drilled prior to June 1, 1983, will be grandfathered without further modification **unless the well is found to be a threat to public health and safety or to groundwater quality**. Examples include:

- the annular space around the well casing is open at the land surface;
- an unprotected opening in the well casing that is above ground level;
- top of well casing is below known flood level and not appropriately sealed;
- deteriorated well casing allowing commingling of aquifers or zones of water of different quality;
- water wells with the well head below ground level,
- water wells located within fifty (50) feet of a source of contamination which affects the quality of water produced by the well.