



Railroad Commission of Texas The Geologic Advisory Unit

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Groundwater Protection Determinations

- Using On-Line Forms GW-1 & GW-2



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The GAU



- Technical Permitting Department
 - Underground Injection Control (UIC)
 - Oil and Gas activities
 - Special Injection Permits (SIP)
 - Solution Mining, CCS, Hydrogen
 - Environmental Permits and Support
 - Tanks, Pits, Haulers
 - Engineering Unit
 - Technical support and review
 - **Geologic Advisory Unit (GAU)**
 - Groundwater Advisory, Location, Mapping
 - Geologic Investigative Unit
 - Severance Tax and Administrative Unit

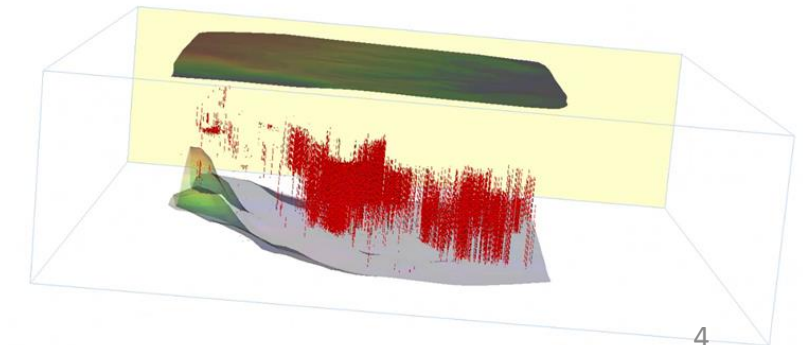
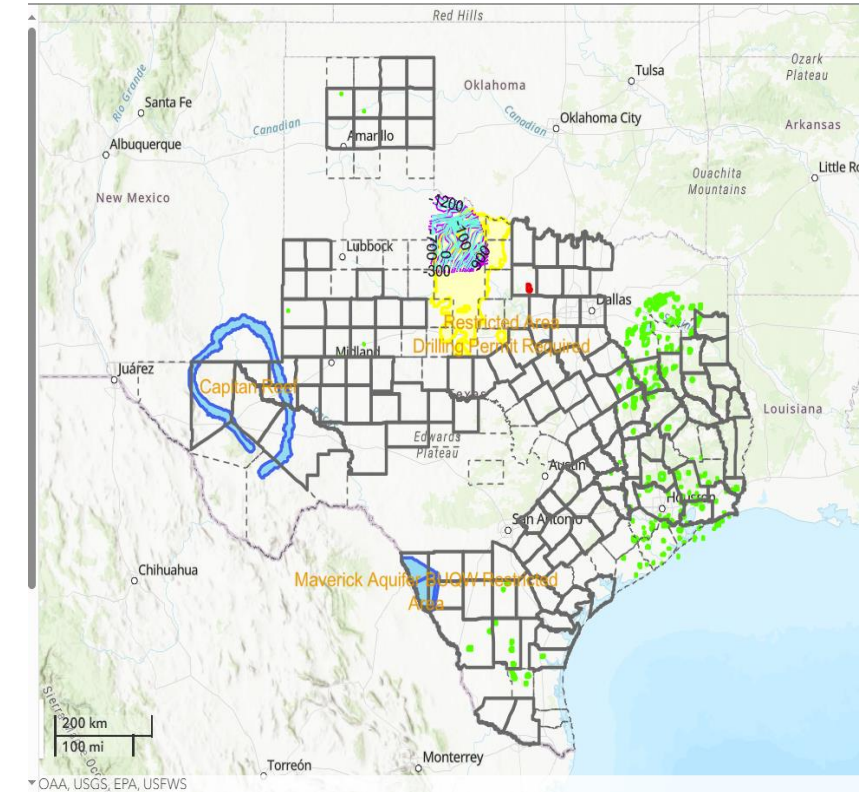


Internet Access to GAU Data and Analytics



Primary Data Sources:

- O&G Operator Provided Information (Help us to Help You)
- Government & NGO Web Resources, RRC, TWDB, TCEQ, BEG, GLO, USGS
- Legacy Cloth Maps, Micro Fiche, and Well Files
 - From 1950 thru 1970's **created in real time**
- Live access to the best available Commercial Geophysical libraries in the World
- **Drilling Insight and Casing Estimator (DICE):**
- University of Texas Bureau of Economic Geology
<https://www.beg.utexas.edu/sce>



What Do We Protect ?



Surface Casing:

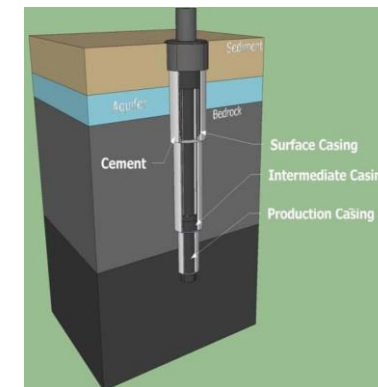
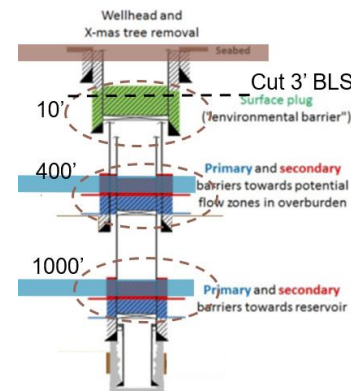
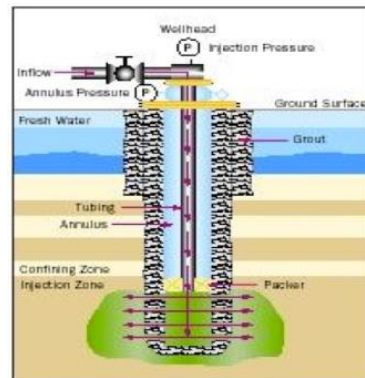
- Texas Economic Code Rule 3.30(B)(i) ...base of usable-quality water (**BUQW**)
 - (generally, less than **3,000 mg/L total dissolved solids**, but may include higher levels of total dissolved solids if identified as currently being used or identified by the **Texas Water Development Board** as a source of water for desalination...

Plugging:

- **EPA** Secondary Drinking water standards are **500 TDS**
- **EPA** considers **1,000 TDS** “Safe” for drinking, you can survive on much higher for a time
- Texas State Water Code 27.002 (8) “Fresh water”
 - Means water having bacteriological, physical, and chemical properties which make it suitable and feasible for beneficial use for any lawful purpose


Underground Injection Control:

- 40 CFR Section 144.3 Underground Source of Drinking Water (USDW)
 - (a) **supplies any public water system, or contains sufficient quantity of ground water to supply public water system and currently supplies drinking water for human consumption** or contains **fewer than 10,000 milligrams/liter of Total Dissolved Solids (TDS)**
 - b. is not an exempted aquifer.



Classic Water Board Letters

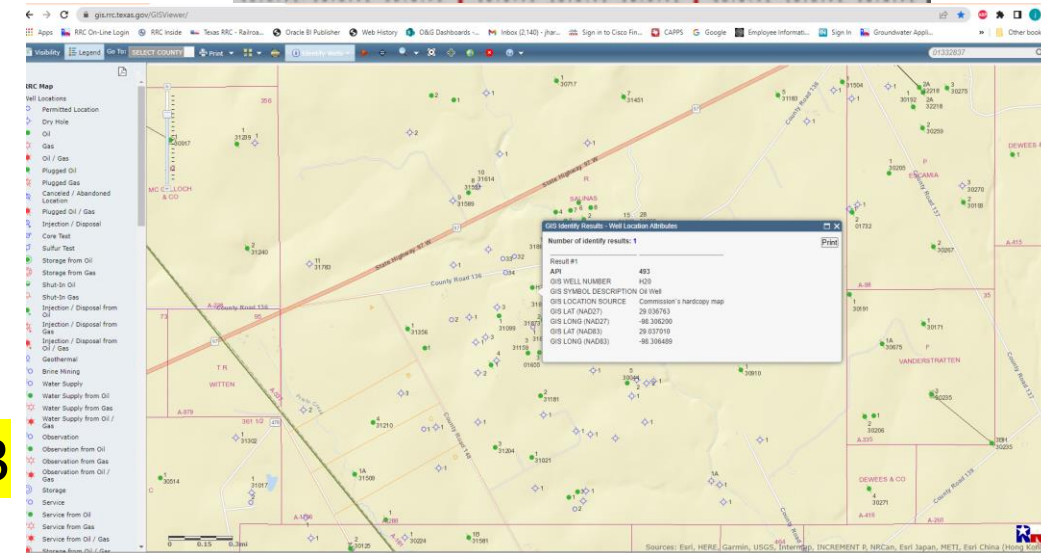
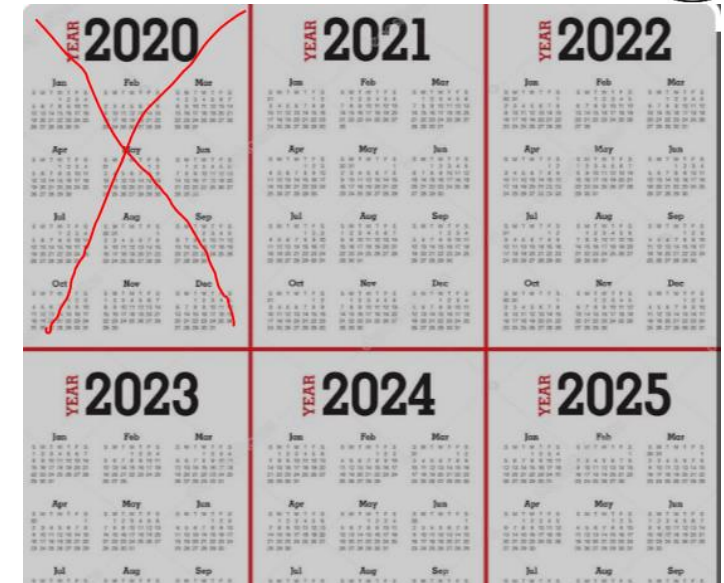
- Date Issued
 - Good for 5 years from this date
 - GAU Number (Primary Key)
- Demographics
 - Letters can be ordered by anyone
 - Valid Letters can be used by anyone else
- Purpose and Location
 - Letters can be used for multi purposes
 - Shallow, medium, deep
- Location
 - Letters are issued to a location
- Determination
 - Depths of tops & bottoms of water bearing zones

| GROUNDWATER PROTECTION DETERMINATION | | Form GW-2 |
|--|--|-----------|
| Groundwater Advisory Unit | | |
|  | | |
| Date Issued: 03 June 2022 | GAU Number: 345211 | |
| Attention: DIAMONDBACK E&P LLC 500 W TEXAS AVE STE 1200 MIDLAND, TX 79701 | API Number: County: PECOS Lease Name: Zauk State 37-39 B Lease Number: Well Number: 2WA Total Vertical: 10460 Latitude: 31.095050 Longitude: -103.169281 Datum: NAD27 | |
| Operator No.: 217012 | | |
| Purpose: New Production Well | | |
| Location: Survey-T&P RR CO; Abstract-964; Block-49; Township-8S; Section-37 | | |
| To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends: | | |
| 37). Water-bearing strata from the land surface to a depth of 400 feet and the Rustler, which is estimated to occur from 1000 to 1400 feet must be protected. | | |
| This recommendation is applicable to all wells within a radius of 2000 feet of this location. | | |
| Note: Unless stated otherwise, this recommendation is intended to apply to all wells drilled within 200 feet of the subject well. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only. | | |
| This determination is based on information provided when the application was submitted on 06/02/2022. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov. | | |
| Groundwater Advisory Unit, Oil and Gas Division | | |
| Form GW-2 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas. Rev. 02/2014 | | |

GW-2 (Water Board Letter) Useability



- Letters are only Valid for 5 Years
 - Information availability improves with time
- Issued for the location not the Requestor
 - Anyone can use any valid letter for any valid purpose
- The GAU letter will specify the location
 - Section/ Abstract/ Radius/ API Number
 - <https://gis.rrc.texas.gov/GISViewer/>
- Section-wide letters can be requested
 - Depends on the depth to BUQW
 - Complexity of hydrogeology
 - **Wide Area H-15 Letters Discontinued since 2023**



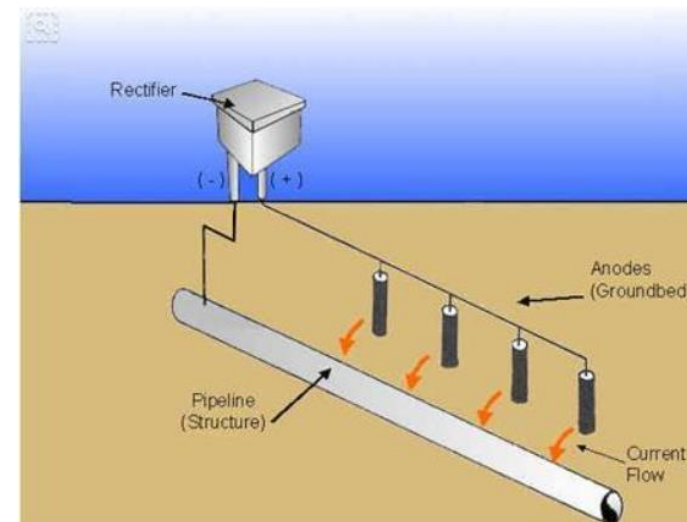
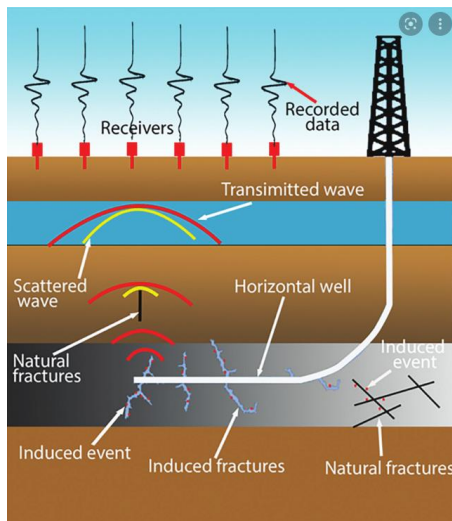
- [illegible]

If a well fails H-15 testing and is going to be plugged or subjected to an activity requiring a current Groundwater Determination Letter, then a new application must be submitted with the appropriate Reason for Filing to obtain all the groundwater protection isolation depths for the well.

Shallow Determinations [Single Purpose]



- [SWR 99] Cathodic Protection Wells
- [SWR 100] Seismic/Microseismic Wells
 - GW-1 Needed if Well is >30' (SWR 99 & SWR 100)
 - W-1 (Permit) Needed if CP/MS well penetrates protection depth
 - Submit well schematic of CP/MS well with W-1
 - GW-2 for CP/MS wells cannot be used for other purposes



Medium Depth Letters [Multipurpose]



- SWR 13: New Drills
 - Re-entry, Recompletion
- SWR 14: Plugging
- SWR 15: H-15
- SWR 13: O&G Water Supply
- SWR 13: P-13 Conversion to Water Well



New Drill [Multipurpose]



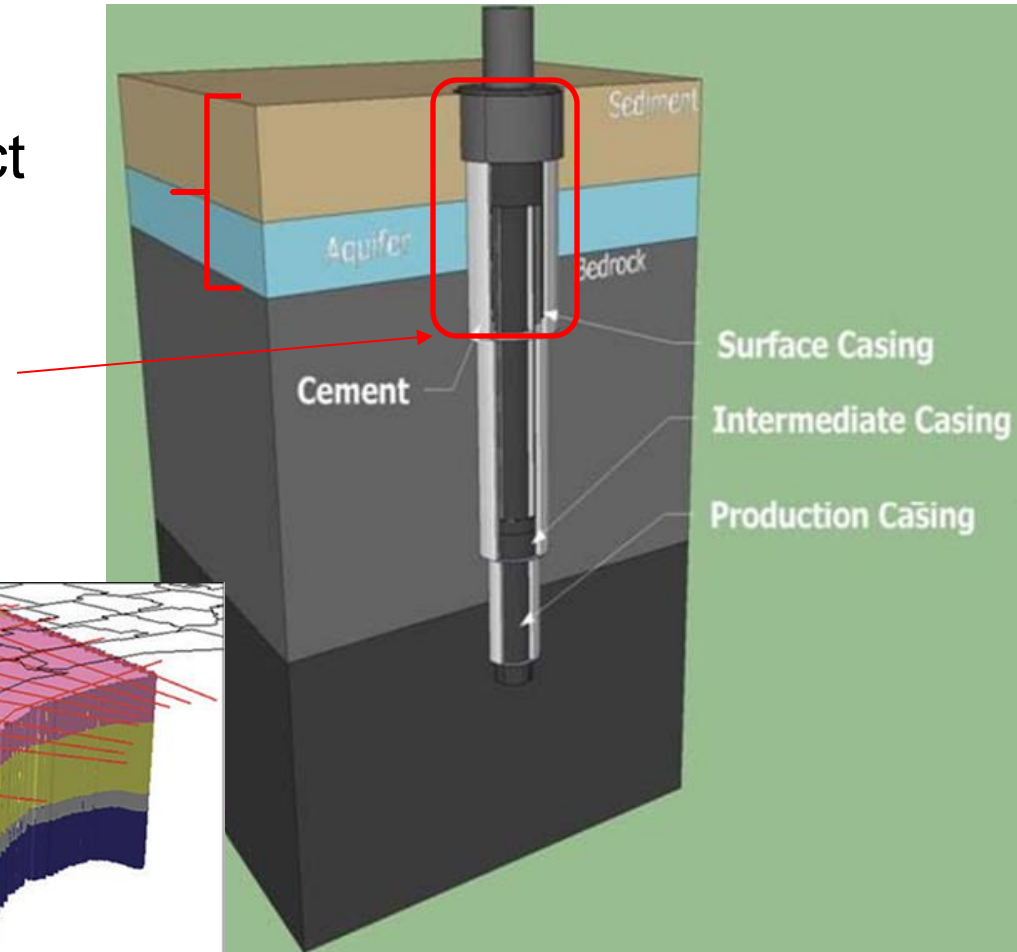
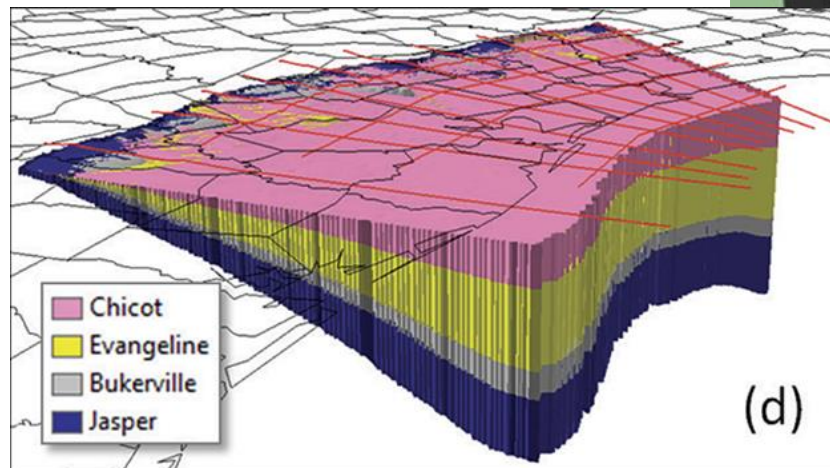
- Surface Casing and Cementing
 - SWR 13: Set and cement surface casing protect usable quality water strata (BUQW)
 - Casing shoe set at or 200' below BUQW
 - Identify all unique water bearing formations
 - ✓ Prevent underground mixing & pressure loss

Gulf Coast Example:

4 Gulf Coast Aquifers

4 Protection Depths

❖ Variable protection depths



Well Plugging [Multipurpose]

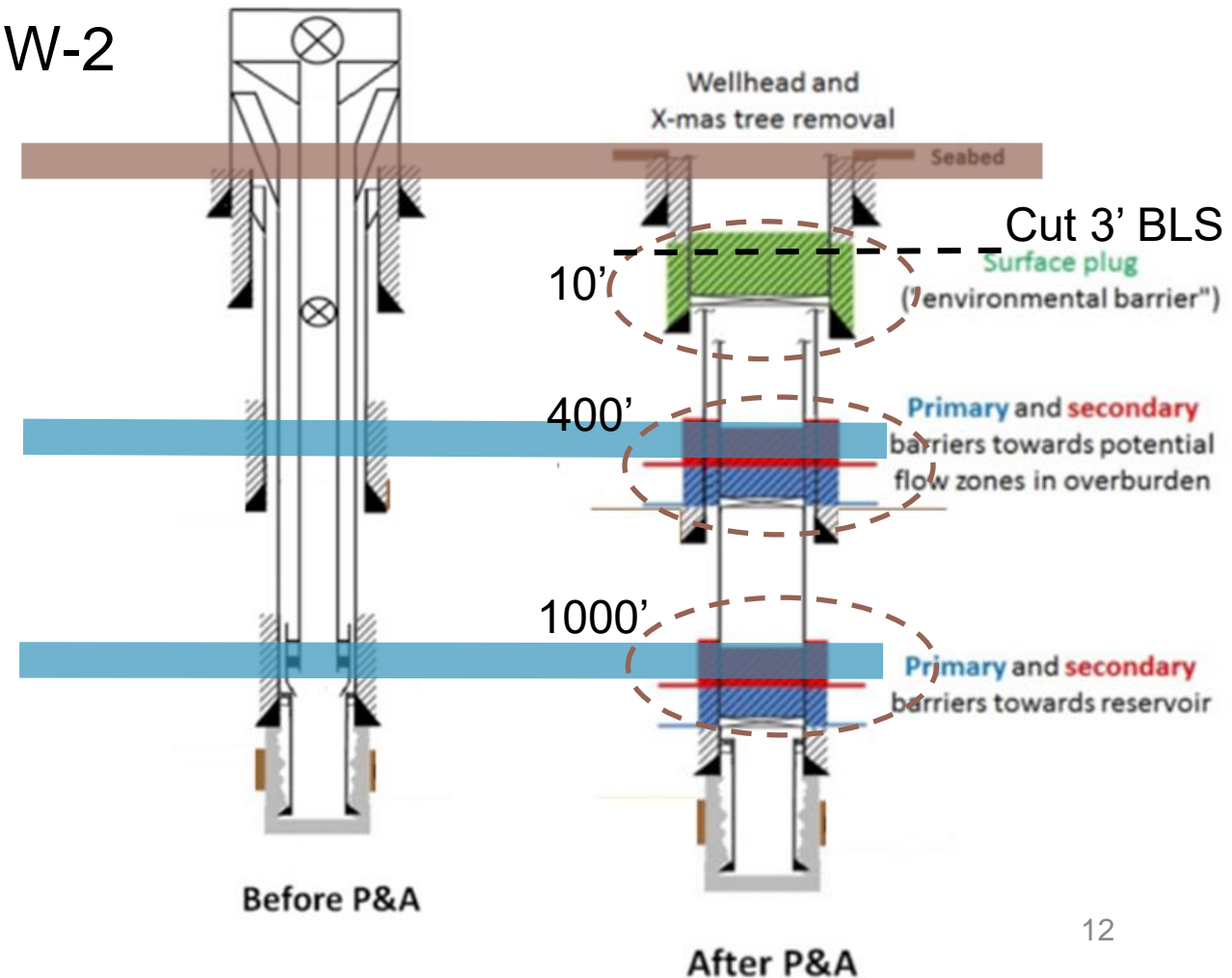
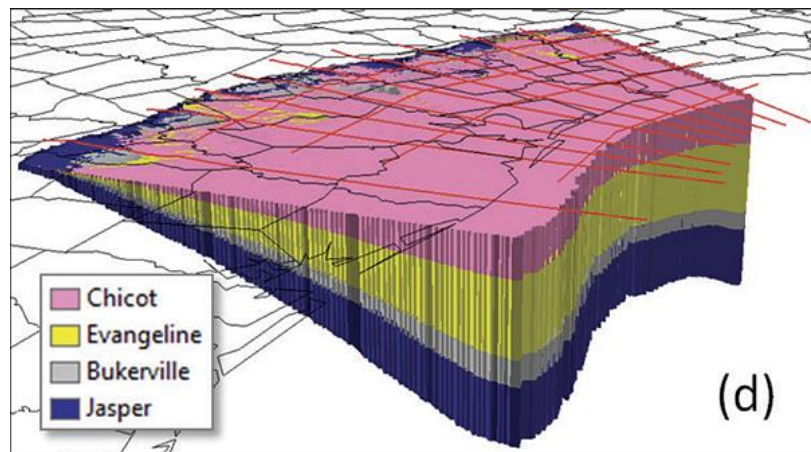


- SWR 14: Requires plugs to isolate Base of Usable Water Strata
- Separate all Usable Water Strata as determined by the GAU
 - Multiple zones may be identified on GW-2
 - 100' Plugs centered at GW-2 depths
 - Effects areal extent given

Example:

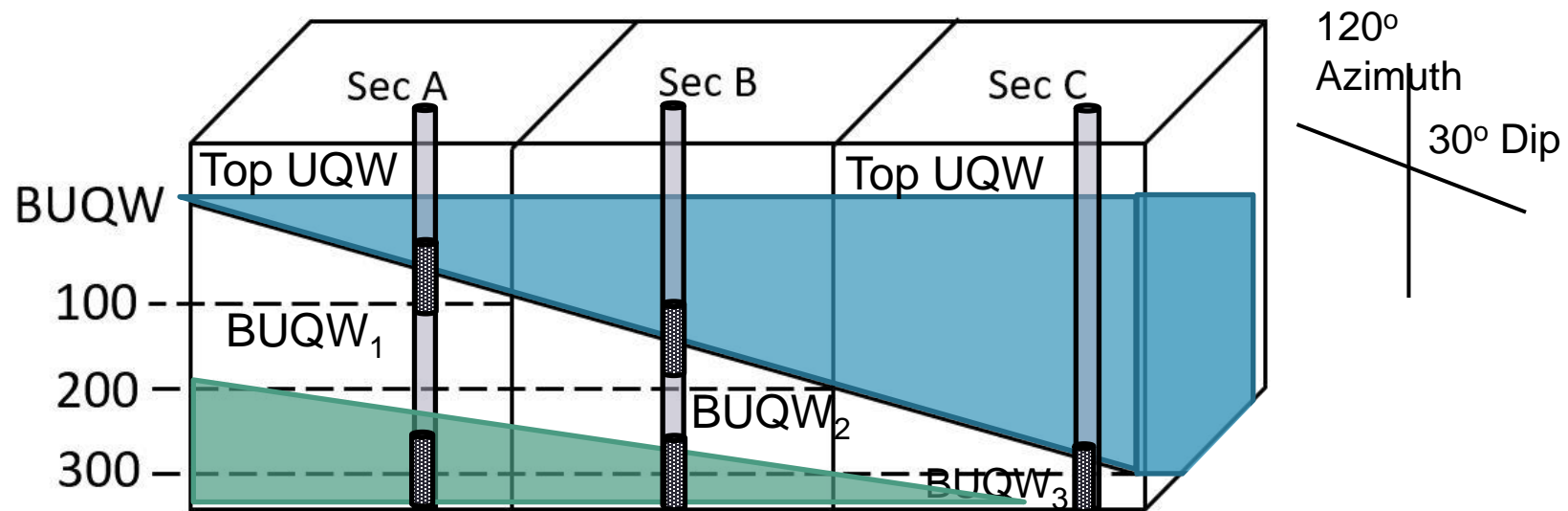
4 Gulf Coast Aquifers

4 Protection Depths (1 to 1 relationship)



Areal Extents

- The areal extent given depends on change of elevation to protection depth(s) (BUQW)
 - Surface Elevation
 - Stratigraphic Dip
- SWR 14 requires 100' plugs centered on Protection Depths
 - The areal extend is limited to a BUQW change of 50-100 ft over the area requested



UIC Purpose of Filing H-1 & W-14 [Single Purpose]



- Additional info is required for UIC Wells
 - Must attach Form H-1/H-1A or W-14 (injection interval)
 - Representative well log required for W-14
- Base of USDW Statement Included (<10K TDS)
 - No injection allowed into Underground Sources of Drinking Water (USDW)*
 - Identify USDW (10 K TDS) in addition to USDW
- GW-2's include Geologic Isolation Statements
- GW-2 Includes "No Endangerment" language
 - W-14's and some H-1's receive "X Endanger"

UIC Purpose of Filing H-1 & W-14 Continued



- Past UIC Reviews included Documents sent to Operators and UIC the Department
- This information now included in GW-2's
- Special Injection Permits Unit (SIP)
 - Class V Geothermal
 - Class VI Carbon Sequestration
 - Maintain an Underground
 - Hydrocarbon Storage
 - Mining of Produced Water
 - Lithium, Magnesium, Zinc, Platinum group metals
 - Form H-2 Create, Operate, Maintain a Brine Mining Facility
 - Form H-4 Application to Create, Operate and Maintain an Underground Hydrocarbon Storage Facility

CHRISTI CRADDOCK, CHAIRMAN
WAYNE CHRISTIAN, COMMISSIONER
JIM WRIGHT, COMMISSIONER

DANNY SOBELL
DIRECTOR, OIL AND GAS DIVISION
JAMES HARCOURT, P.G.
MANAGER, GROUNDWATER ADVISORY UNIT

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION

February 8, 2024

Corda Corporation
1331 Oakhurst Drive
Wichita Falls, Texas 76302
Attn: Paul Leming

Re: Application to Dispose of Oil and Gas Waste by Injection (RRC Form W-14)
Corda Corporation, Word #2
2645' FEL, 1000' FSL, W & N W RR, CO. Survey, Abstract-1118, Section-24, Block-H
Hardeman County, Texas (D-76) (API# 19730721) (GAU# 378377)

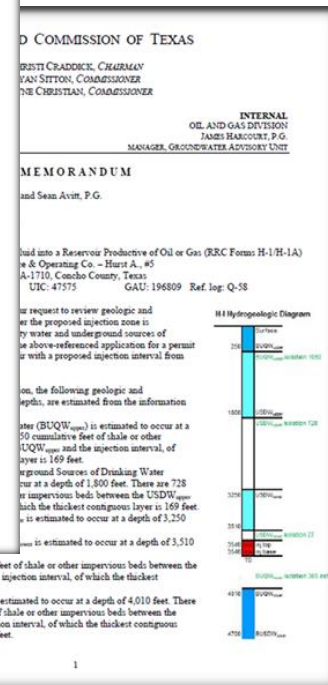
Dear Mr. Leming:

This letter is in response to your referenced application for a Railroad Commission of Texas permit to dispose of oil and gas waste into strata in the depth interval from 8,062 feet to 8,380 feet. Our review of the data contained in the application and of other available geologic data indicates, if otherwise compliant with Railroad Commission of Texas rules and guidelines, that drilling and using this disposal well and injecting oil and gas waste into the subsurface stratum will not endanger the freshwater strata in that area.

The base of usable-quality groundwater occurs to a depth of approximately 250 feet in accordance with GAU Letter No. 378377. The base of the Underground Source of Drinking Water (USDW) is estimated to be 350 feet. If you have any questions about this letter, please contact Tom Eiders, Groundwater Advisory Unit, by telephone at (512) 453-7380, by e-mail at Tom.Eiders@rc.texas.gov, or in writing at the address shown on the letterhead (specify Mail Code MC-455-19 on the first line of the address).

W14_22313_19730721_D76_20240208.pdf

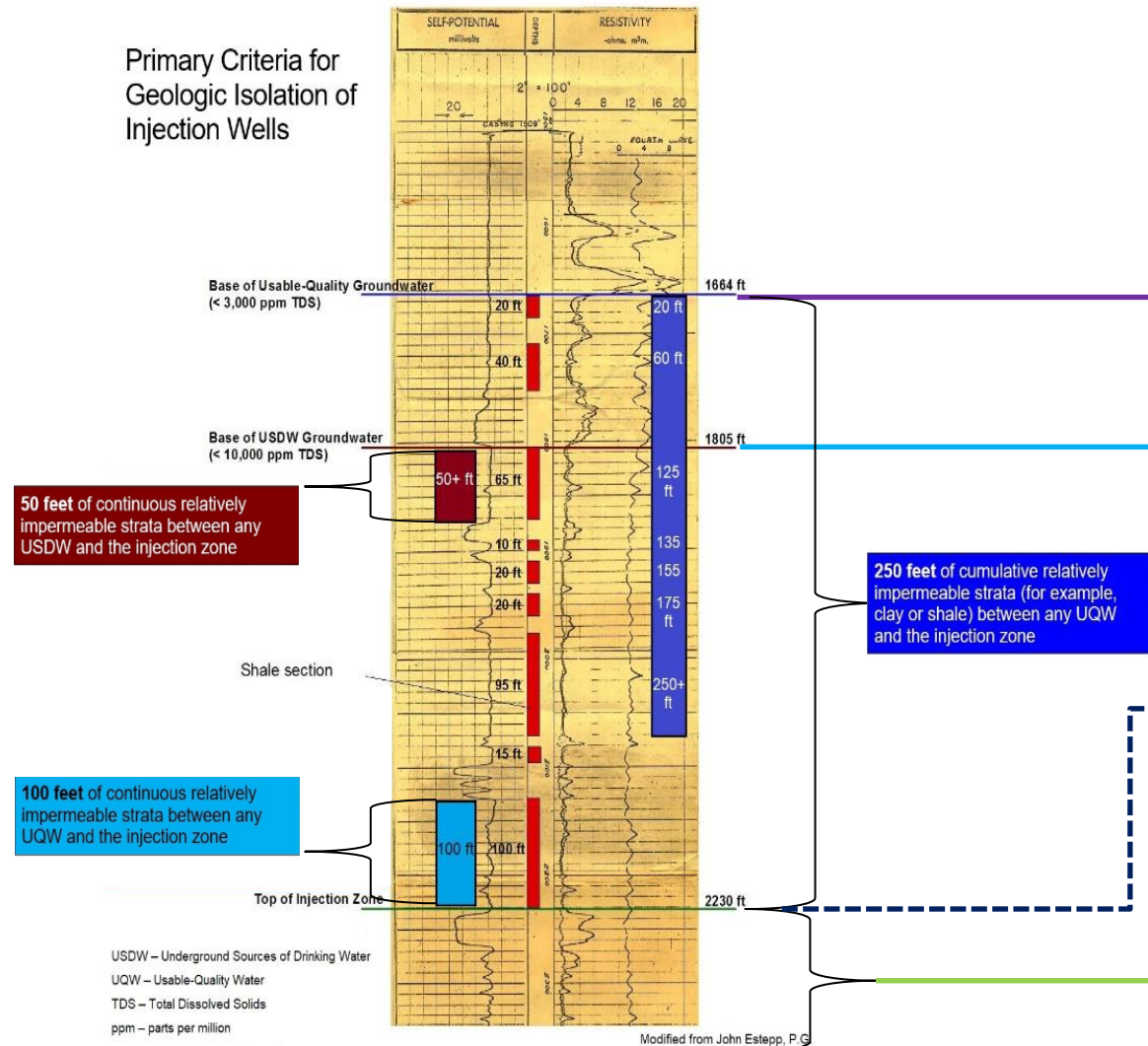
1701 NORTH CONGRESS AVENUE • POST OFFICE BOX 12867 • AUSTIN, TEXAS 78711-0287 • PHONE: 512-463-2741 • FAX: 512-463-7324
TDD: 512-737-3560 • ANTI-EQUAL OPPORTUNITY EMPLOYER • <http://www.rc.texas.gov>



New Combined GW-2 Format for Injection Well & Geologic Isolation



Primary Criteria for Geologic Isolation of Injection Wells



| GROUNDWATER PROTECTION DETERMINATION | | Form GW-2 | |
|--|---|------------------------|---------------|
| Groundwater Advisory Unit | | | |
| Date Issued: | 10 March 2021 | GAU Number: | 296480 |
| Attention: | STATE OF TEXAS 123 Sam View Dr. Canada, TX 12345 | API Number: | 12345678 |
| Operator No.: | 012345 | County: | Martin |
| | | Lease Name: | Bodacious SWD |
| | | Lease Number: | |
| | | Well Number: | 1 |
| | | Total Vertical: | 2300 |
| | | Latitude: | 32.164950 |
| | | Longitude: | -101.981790 |
| | | Datum: | NAD27 |
| Purpose: | Injection into Non-producing Zone (W14) | | |
| Location: | Survey-T&P RRC Co. Survey; Abstract-A-0000; Block-22; Section-1 | | |
| To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends: | | | |
| The Base of Usable-Quality Water-bearing (BUQW) strata is estimated to occur at a depth of 1,664 feet at the site of referenced well. | | | |
| The BASE OF UNDERGROUND SOURCES OF DRINKING WATER (USDW) is estimated to occur at a depth of 1,805 feet at the site of the referenced well. (For UIC Purpose Only) | | | |
| Geologic Isolation occurs at 2,230 feet measured depth at the site of the referenced well. (For UIC Purpose Only) | | | |
| Injection into the subsurface interval 2,235 - 4,100 feet, as listed on the W14 application dated March 10, 2021, WILL NOT ENDANGER the freshwater strata in this area. For questions, see contact information below. | | | |
| This recommendation is applicable to all wells within a radius of 200 feet of this location. | | | |
| Note: Unless stated otherwise, this recommendation is intended to apply to wells drilled within 200 feet of the subject well. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only. | | | |
| This determination is based on information provided when the application was submitted on 03/10/2021. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov. | | | |
| Groundwater Advisory Unit, Oil and Gas Division | | | |
| Form GW-2 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.gov | | | |
| Rev. 02/2014 | | | |

New Combined Format UIC & Geologic Isolation Continued



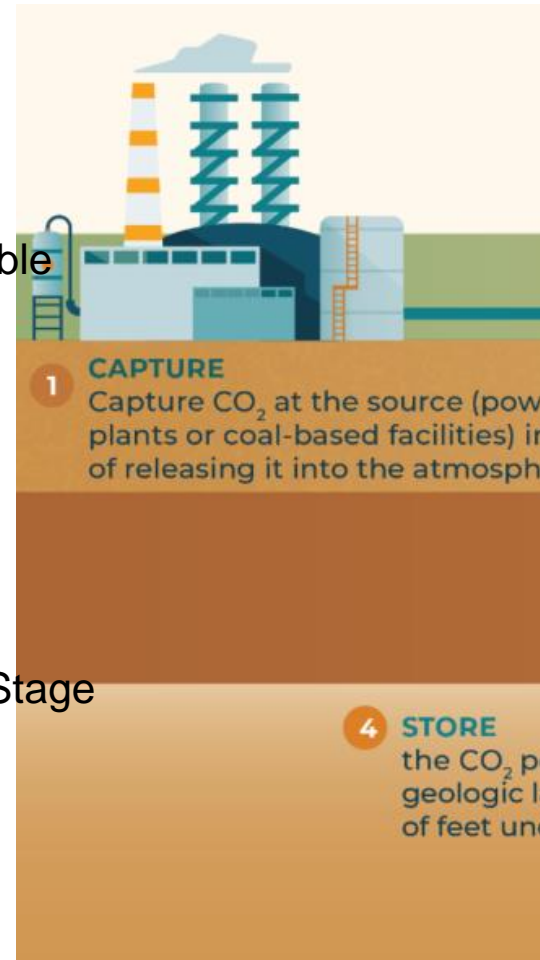
- Applies to all Wells
- For UIC Wells Only
- Statutory UIC Statement
 - Technical Permitting
 - Field Ops
 - Operators

| | |
|---|---|
| Purpose: | Injection into Non-producing Zone (W14) |
| Location: | Survey-T&P RRC Co. Survey; Abstract-A-0000; Block-22; Section-1 |
| To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends: | |
| The Base of Usable-Quality Water-bearing (BUQW) strata is estimated to occur at a depth of 1,664 feet at the site of referenced well. | |
| The BASE OF UNDERGROUND SOURCES OF DRINKING WATER (USDW) is estimated to occur at a depth of 1,805 feet at the site of the referenced well. (For UIC Purpose Only) | |
| Geologic Isolation occurs at 2,230 feet measured depth at the site of the referenced well. (For UIC Purpose Only) | |
| *Injection into the subsurface interval 2,235 - 4,100 feet, as listed on the W14 application dated March 10, 2021, WILL NOT ENDANGER the freshwater strata in this area. For questions, see contact information below * | |
| This recommendation is applicable to all wells within a radius of 200 feet of this location. | |

Class VI GW-2 Letter Workaround [Single Purpose]



- Class VI Carbon Sequestration
 - Capture of Industrial CO₂
 - Permanent CO₂ Storage
 - Climate Change Driven
 - 45Q Tax Credit
- Class VI Purpose for Filing Unavailable
 - Use Purpose Test Well for New Drills
 - Use Purpose W-14 for final letter
 - Attach CSS Data Sheet
- GW-2 Includes BUQW and USDW
 - No Isolation Statement
- New Letters will be issued for each Stage
 - Characterization
 - Injection Test
 - Operation
 - Expansion/Monitor
 - Close Out



| GROUNDWATER PROTECTION DETERMINATION | | Form GW-2 |
|---|--|--|
| Groundwater Advisory Unit | | |
| Date Issued: | 22 April 2024 | GAU Number: 381431 |
| Attention: | MILESTONE CARBON, LLC 840 GESSNER ROAD SUITE HOUSTON, TX 77024 | |
| Operator No.: | 100805 | API Number: County: LOVING Lease Name: Loving AGI Lease Number: Well Number: 2 Total Vertical: 22780 Latitude: 31.884337 Longitude: -103.695788 Datum: NAD27 |
| Purpose: | Injection into Non-producing Zone (W-14) | |
| Location: | Survey-T&P RR CO; Abstract-65; Block-54; Township-1; Section-43 | |
| To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends: | | |
| The base of usable-quality groundwater is estimated to occur at a depth of 1,425 feet at the site of the referenced well. The BASE OF UNDERGROUND SOURCES OF DRINKING WATER (USDW) is estimated to occur at a depth of 1,475 feet at the site of the referenced well. | | |
| *The vertical geological isolation from both bases of usable quality water and underground source of drinking water is at 1,800 feet in TVD depth.* | | |
| *Injection of oil & gas wells' waste (CO ₂ & H ₂ S) into the subsurface interval from 18,387 to 22,780 feet in TVD depth, as proposed in the submitted W14 Form application dated on April 19, 2024, WILL NOT ENDANGER the PROTECTED WATER STRATA at the proposed location in this area. For questions, see contact information below.* | | |
| Note: Unless stated otherwise, this recommendation is intended to apply to all wells drilled within 200 feet of the subject well. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only. | | |
| This determination is based on information provided when the application was submitted on 04/19/2024. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov. | | |
| Groundwater Advisory Unit, Oil and Gas Division | | |
| Form GW-2 Rev. 02/2014 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.gov | | |

North-Central Texas GAU Letter (1 of 2)



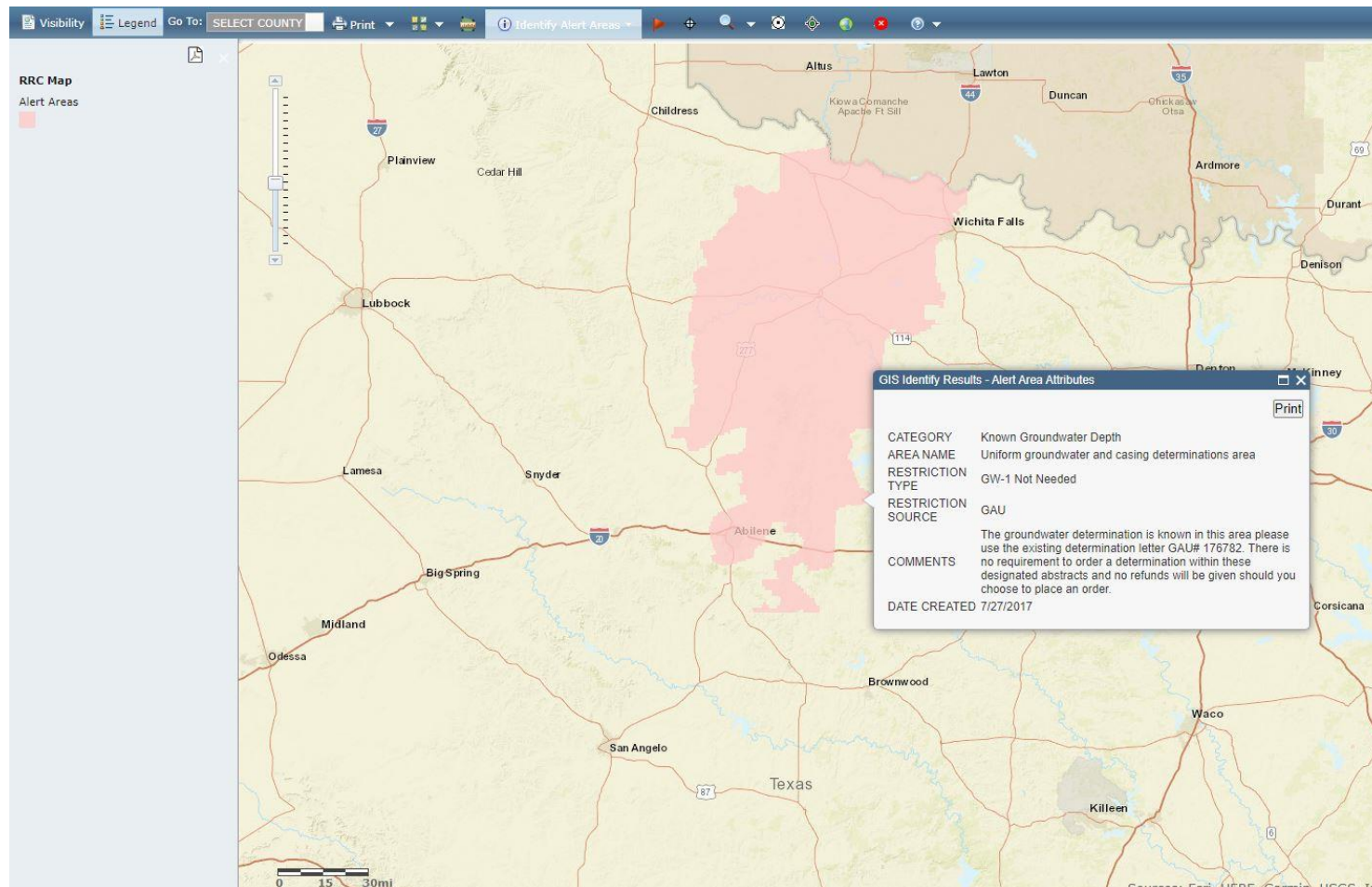
- Set BUQW for the North-Central Texas Area Groundwater Protection Determination
- Download GAU letter from GAU website
- Does not apply for injection wells. Need to submit GW-1



North-Central Texas GAU Letter (2 of 2)



- North-Central Texas Area Groundwater Protection Determination
- Determination info also on RRC Public GIS Viewer



On-Line Login



<https://webapps.rrc.state.tx.us/security/login.do>

The screenshot shows a web browser window with the address bar displaying "webapps.rrc.texas.gov/security/login.do". The page header includes the "RRC ONLINE SYSTEM" logo and a navigation bar with a dropdown menu labeled "Choose an Application", a "Go" button, and a "Log In" button. Below the header, the "Log In" section contains input fields for "UserID" (containing "harcourj") and "Password" (masked with dots), a "Submit" button, and links for "Forgot Password?" and "Forgot User Id?".

Log In

Log in to access the RRC Online System.

UserID:

Password:

[Forgot Password?](#) OR [Forgot User Id?](#)

The RRC Online System allows authorized entities to electronically file certain forms with the Railroad Commission online or through EDI. Forms processed through this system are ones containing data that has been migrated from the Commission's mainframe to an open system environment. Through the RRC Online System, forms can be filed online over the Internet using a web browser, or data files can be uploaded through the application.

How to Obtain a User ID:

To utilize the Online Filing system, you must have a User ID that is assigned to you by your company's designated Security Administrator. A company or individual may designate a Security Administrator by completing the Security Administrator Designation (SAD) form and mailing it to the RRC. When the SAD form is processed, the Security Administrator will receive a User ID and a temporary initial password. The Security Administrator will be able to log into the RRC Online System using their assigned User ID and create User IDs for users within their company. They will also be able to assign certain electronic filing rights for those accounts, and perform account maintenance activities (such as resetting passwords) when needed.

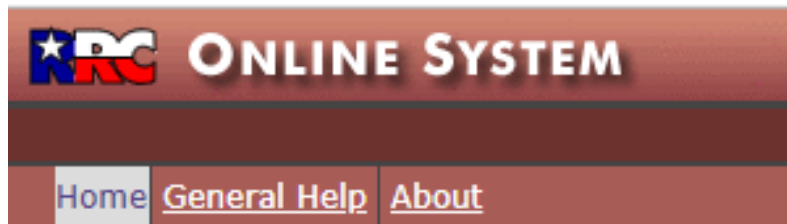
If you are uncertain whether your company has a security administrator, please email the Commission at rrconline-security@rrc.texas.gov.

1. [Read](#) the requirements for participating in online filing.
2. [Print](#) the SAD form.
3. Complete and sign the form then mail it to the RRC, following instructions on Page 2 of the form. When the form is processed, the designated security administrator will receive a User ID and temporary password by email.
4. The security administrator will log into the system and assign User IDs and filing rights.

GW-1 Administrative Filing



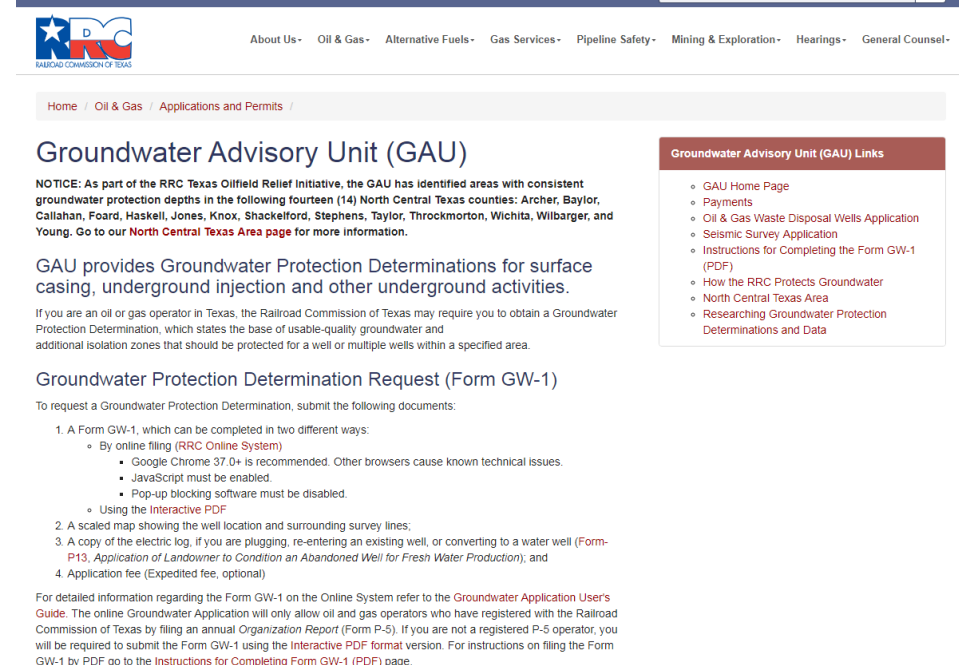
- Groundwater Determinations can be ordered two ways
 - Use the RRC On-Line System
 - Download a PDF form on the GAU Website
 - Email the completed GW-1 form to gau@rrc.texas.gov
 - Send the completed GW-1 form through regular mail



Welcome to the RRC Online System

Main Application

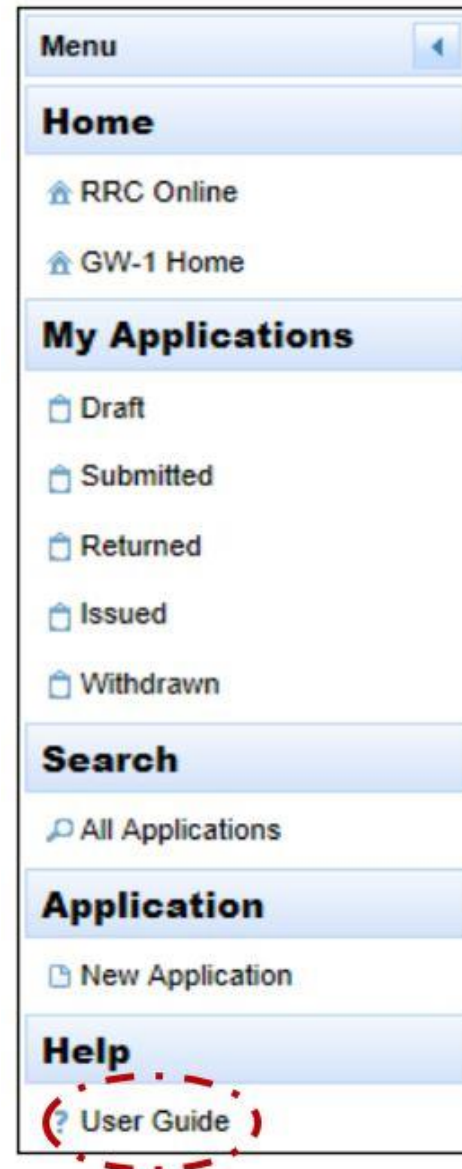
- [Account Administration](#)
- [Drilling Permits \(W-1\)](#)
- [Completions](#)
- [Groundwater \(GW-1\)](#)
- [Digital Well Log Submission](#)



Menu and User Guide



- My Applications (Status)
 - Check application status
 - “Draft” means not submitted
- Search for previous filings
- New Application
- User Guide



Reason for Filing: H-1 or W-14



- GAU letters for UIC must have correct purpose of filing
 - H-1 and W-14 letters are different evaluations
 - Attach Form H-1A or W-14
 - Log required for H-1 and W-14

Groundwater Application : GW-1

Filing Information

If Reason for Filing is 'New Production Well', data fields will be prepopulated if available from an entered API Number/DP Number. Data will not be prep Effective 02/01/2016, an Application Fee with Surcharge totaling \$250 will be payable on initial submission of this application.

Reason for Filing* Test On Inactive Well (H-15)

Areal Extent* Injection into Non-producing Zone (W-14)

Previous GAU No. for this well Injection into Producing Zone (H1)

Submission Date* Leak Test (LT)

Operator Information

Are you filing for P5 Operator? ☒

Search Operator

API Number 42- 000-00000

Radius Distance

Rig On Location ☐

Regular Register NO. Number

Reason for Filing Options:

- Test On Inactive Well (H-15)
- Injection into Non-producing Zone (W-14)
- Injection into Producing Zone (H1)
- Leak Test (LT)
- Microseismics (MS)
- New Production Well
- Oil & Gas Water Supply Well
- Plug and Abandon (P&A)
- Recompletion (RC)
- Reentry (RE)
- Swabbing



Reason for Filing: Areal Extent or Well Specific

- May request radius, section, abstract, lease...
- Specify wells in “Remarks” or attachment
- Show requested area on map (lease, survey, etc.)

Groundwater Application : GW-1

Filing Information

If Reason for Filing is 'New Production Well', data fields will be prepopulated if available from an entered API Number/DP Number. Data will not be prepopulated for a 'New Injection Well'. Effective 02/01/2016, an Application Fee with Surcharge totaling \$250 will be payable on initial submission of this application.

Reason for Filing*

Areal Extent*

Previous GAU No. for this well

Submission Date*

Operator Information

Are you filing for P5 Operator? ☒

Operator Name*

Operator Number*

API Number 42-

Radius Distance

Rig On Location ☐

Regular Register NO.

GW-1 Online Application 1 of 7



- Main menu
- Check the status of your applications
- Start a new application
- Search applications

Groundwater Application

Not secure | uat.rrc.state.tx.us/gw1/

Groundwater Advisor... ST-1 / Area Designati... oilandgascontacts.pdf Oracle PeopleSoft Sig... RRC Inside The Texas General La... Texas RRC - Hearings RULES RRC Surface Casing E... CASES Online ST-1 Assignm... Texas.gov Digital Idem...

Railroad Commission of Texas

Menu

- Home
- RRC Online
- GW-1 Home
- My Applications**
 - Draft
 - Submitted
 - Returned
 - Issued
 - Withdrawn
 - Search**
 - All Applications
 - Application
 - New Application
 - Help
 - User Guide

Groundwater Application : GW-1

Application Count : 0

My Applications

Showing 0-0 out of 0 applications

| GAU Number | Date Submitted | Application Status | Submitter Name | Operator Name | County | Lease Name | Well Number |
|------------|----------------|--------------------|----------------|---------------|--------|------------|-------------|
| | | All | | | | | |


No results found for search.

Showing 0-0 out of 0 applications

GW-1 Online Application 2 of 7



- Click “NEW APPLICATION”
- Fill out the boxes with the red *

 Railroad Commission of Texas User: Matthew Acock Log Out

Menu

- Home
- RRC Online
- GW-1 Home
- My Applications
 - Draft
 - Submitted
 - Returned
 - Issued
 - Withdrawn
- Search
 - All Applications
- Application
 - New Application
- Help
 - User Guide

Groundwater Application : GW-1

Filing Information

If Reason for Filing is 'New Production Well', data fields will be prepopulated if available from an entered API Number/DP Number. Data will not be prepopulated for any other Reason for Filing. Effective 02/01/2016, an Application Fee with Surcharge totaling \$250 will be payable on initial submission of this application.

Reason for Filing* Choose API Number 42- 000-00000 DP Number Number

Areal Extent* Choose Radius Distance Expedite ☐ Expedite Fee with Surcharge is \$187.50

Previous GAU No. for this well

Operator Information

Search Operator

Operator Name* Name Operator Number* Number

Address1* Address2

City* State*

Zip Code*

Well Identification

County* District

Lease ID Number Lease Name* Name

Well Number Alternate Well ID

GPS Coordinates


Select the format and datum for the well surface location
State Plane X- and Y-Coordinates cannot be entered with a decimal point. If needed, either round or truncate and enter as a whole number.

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GW-1 Online Application 3 of 7



- Here is where you will enter the coordinates and survey information

 **Railroad Commission of Texas** User: Matthew Acock [Log Out](#)

Menu

- Home
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Groundwater Application : GW-1

Well Number Alternate Well ID

GPS Coordinates

Select the format and datum for the well surface location
State Plane X- and Y-Coordinates cannot be entered with a decimal point. If needed, either round or truncate and enter as a whole number.

Format* NAD*

Latitude
Degrees

Longitude

Survey Information

Survey* Abstract Number

Block Township Section

Tract Lot

League Labor

Porcion Share

Reference Lines

The distance (in feet) is measured from the surface hole location of the well and intersects the survey line at right angles. The direction is determined based on the direction from the surface hole location of the well to the survey line.

Reference Line*

First Distance* First Direction*

Second Distance* Second Direction*

Upload Files

IMPORTANT: Click Upload to upload the selected attachments

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GW-1 Online Application 4 of 7



- This is the Section where you will need to upload the required attachments.
- No Special Characters (!@#\$%^&*) or Spaces

The screenshot shows the "Groundwater Application : GW-1" form. The top navigation bar includes the Railroad Commission of Texas logo, the text "Railroad Commission of Texas", and the user "Matthew Acock" with a "Log Out" link. A left-hand menu lists options like Home, RRC Online, GW-1 Home, My Applications, Draft, Submitted, Returned, Issued, Withdrawn, Search, All Applications, Application, New Application, Help, and User Guide. The main content area is titled "Groundwater Application : GW-1" and contains a "Reference Line" section with a dropdown menu set to "Choose" and four input fields for "First Distance", "First Direction", "Second Distance", and "Second Direction". Below this is an "Upload Files" section with the instruction "IMPORTANT: Click Upload to upload the selected attachments". It features a "Choose File Type" dropdown set to "Map" and a file selection dialog with "Choose", "Upload", and "Cancel" buttons. A table with columns "File Name", "File Size", "File Type", and "Upload status" is shown, with a message "No results found for search." and a pagination bar indicating "(1 of 1)" and "10" items. The "Additional Information" section includes input fields for "Total Vertical Depth", "Elevation", and "Formation at Total Vertical Depth", along with a large "Remarks" text area with a "250 characters remaining" indicator. At the bottom, there are "Save" and "Next" buttons, with a red arrow pointing to the "Next" button. The footer contains a "Disclaimer" and links to "RRC Online", "RRC Home", "Release : 2.2.5", and "Contact".

GW-1 Online Application 5 of 7



- “Next” at bottom of page accepts the terms and proceeds to payment.
 - Missing data is highlighted in red and pink
 - If system will not let you continue to next page and you do not have any highlighted errors, your application has probably “timed out” in the background

Upload Files

IMPORTANT: Click Upload to upload the selected attachments

Choose File Type*

+ Choose

Upload

Cancel

| File Name | File Size | File Type | Upload status |
|------------------------------|-----------|-----------|---------------|
| No results found for search. | | | |
| (1 of 1) | | | |

Additional Information

Total Vertical Depth*

Elevation*

Formation at Total Vertical Depth

Remarks

250 characters remaining.

Save

Next

GW-1 Online Application 6 of 7



- **Certification statement: Select to “Accept”, then the “Payment” button to proceed to payment.**
- **The Payment screen is on the Comptroller web site**

The screenshot shows the "Groundwater Application : GW-1" interface. On the left is a "Menu" sidebar with options: Home, RRC Online, GW-1 Home, My Applications (with sub-options: Draft, Submitted, Returned, Issued, Withdrawn), Search (with sub-options: All Applications, Application, New Application), and Help (with sub-option: User Guide). The main content area is titled "Complete the Application Submission Process" and includes a "View Application" button. It contains three steps: Step 1 (Read the statement and click Accept), Step 2 (Click Payment to pay fees), and Step 3 (Select RETURN after payment). Below the steps is a declaration box with the text: "I declare under penalties prescribed in Texas Natural Resources Code Section 91.143, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete, to the best of my knowledge." At the bottom of the declaration box are three buttons: "Accept", "Payment", and "Cancel". A red arrow points to the "Accept" button. The footer of the page contains the text: "Disclaimer | RRC Online | RRC Home | Release : 2.2.5 | Contact".

Railroad Commission of Texas User: Matthew

Menu

- Home
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 - User Guide

Groundwater Application : GW-1

Complete the Application Submission Process

[View Application](#)

Step 1: Read the statement in the box below and click the Accept box to digitally sign the application.

Step 2: Click the Payment box to pay fees. Payment is made at initial submission. No fees will be charged for resubmission.

Step 3: Once the payment is complete, select the RETURN button at the bottom of the page to go back to the submit application screen.

I declare under penalties prescribed in Texas Natural Resources Code Section 91.143, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete, to the best of my knowledge.

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Payment



- “Print Confirmation” here (It’s now or never!)
- Push “Return” to go back and finalize submitting the GW-1. Otherwise, the GW-1 remains in “**Draft**” status (**not submitted**)



Railroad Commission of Texas

Payment Portal:

Select QuantityContact InformationVerify InformationPay FeeConfirmation

GAU No: 340120

| | |
|--------------|-------------------------------|
| Name | HEATHER HESSKEW |
| Company Name | RRC OPERATING |
| Phone Number | (512) 463-3184 |
| Email | Heather.hesskew@rrc.texas.gov |

| Fee Description | Amount | Quantity | Total |
|----------------------|-----------|----------|-----------|
| GAU - Surface Casing | \$ 250.00 | 1 | \$ 250.00 |
| RRC Fee | | | \$ 250.00 |
| Texas.gov Price | | | \$ 255.88 |

Payment Information

| | |
|--------------------|------------------------|
| Payment Amount | \$255.88 |
| Date and Time | 05/03/2022 11:02:11 AM |
| Trace Number | 455RM007JJ0428X |
| Authorization Code | TEST123 |
| Register Number | 351900 |

Use the Print Confirmation button below to create a printable receipt and confirm your payment.

Print ConfirmationReturn

Disclaimer | RRC Online | RRC Home | Contact

Correct Zip Code Needed



Important News

Texas.gov Payment Services recently implemented security changes to enhance credit card validation for payments to help ensure the person making the payment is an authorized user for the credit card.

The security enhancements are in the Credit/Debit Card payment page. If the zip code entered in the address section and the credit card security code do not match the information on file with the credit card company, the payment will fail.

Please contact your credit card company to verify this information if your payment fails.

- Correct Zip Code Needed for All Credit Card and Debit Payments
 - Zip Code must match the Bank filed address for Card
 - This is the screen where it says “CUSTOMER ADDRESS”

GW-1 Online Application 7 of 7



- After finding your paid for application in your draft queue, hit the **ACTIONS** button and select **edit and submit**.
- This takes you back into your application and then go down to the bottom and hit **NEXT**. This takes you to the submittal screen that will now take your application to the online system to start the approval processing.

The screenshot shows the "Groundwater Application : GW-1" submittal screen. On the left is a "Menu" sidebar with options: Home (highlighted with a green arrow), RRC Online, GW-1 Home, My Applications (with sub-options: Draft, Submitted, Returned, Issued, Withdrawn), Search, All Applications, Application (with sub-options: New Application), Help, and User Guide. The main content area has a "View Application" button at the top. Below it is a text box containing a declaration: "I declare under penalties prescribed in Texas Natural Resources Code Section 91.143, that I am authorized to make this report, that this report was prepared by me or under my supervision and direction, and that the data and facts stated therein are true, correct, and complete, to the best of my knowledge." At the bottom of the text box are the buttons "Accept", "Submit", and "Cancel".

Application Status



- If an application is returned, “Edit and Resubmit” to make changes to the application and resubmit.

Railroad Commission of Texas User: Laura Adams

Groundwater Application : GW-1

Application Count : 1

My Applications

Showing 1-1 out of 1 applications

| | GAU Number | Date Submitted | Application Status | Submitter Name | Operator Name | County | Lease Name | Well Number | Expedite | Ver |
|----------------|------------|----------------|--------------------|----------------|----------------------|--------|------------|-------------|----------|-----|
| Actions | 191720 | 05-23-2018 | Admin Returned | Laura Adams | ELEON OPERATORS, LLC | CLAY | JONES | 1H | N | 1 |

Showing 1-1 out of 1 applications

Actions

- Edit and Resubmit
- View PDF
- Withdraw
- View Return Email

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GAU Letter Search



- Search for GAU letter using API, lease no. etc.
- Online GAU letters from June 2015 to current day.

Railroad Commission of Texas

Groundwater Application : GW-1

Search Applications

| | | | | | | | | | | | |
|---------------------|---|--------------|----------------------|---|--|---------------|----------------------|-----------------|----------------------|-----------------|----------------------|
| GAU Number | <input type="text"/> | Trace Number | <input type="text"/> | Application Status | <input type="text" value="Select Status"/> | Operator Name | <input type="text"/> | Submitter Name | <input type="text"/> | Operator Number | <input type="text"/> |
| County | <input type="text" value="Select One"/> | Lease Name | <input type="text"/> | Lease Number | <input type="text"/> | Well Number | <input type="text"/> | API Number | <input type="text"/> | Survey Name | <input type="text"/> |
| Abstract Number | <input type="text"/> | Block | <input type="text"/> | Township | <input type="text"/> | Section | <input type="text"/> | Tract | <input type="text"/> | Lot | <input type="text"/> |
| League | <input type="text"/> | Labor | <input type="text"/> | Porcion | <input type="text"/> | Share | <input type="text"/> | SC Number | <input type="text"/> | | |
| Submitted Date From | <input type="text"/> | To | <input type="text"/> | Determination Letter - Date Issued From | <input type="text"/> | To | <input type="text"/> | Rig On Location | <input type="text"/> | | |

Click the Clear Search button to clear the search criteria and results.

Showing 0-0 out of 0 applications

| GAU Number | Date Submitted | Application Status | Submitter Name | Operator Name | Operator Number | County | Lease Name | Well Number | API Number | Survey Name |
|------------------------------|----------------|--------------------|----------------|---------------|-----------------|--------|------------|-------------|------------|-------------|
| No results found for search. | | | | | | | | | | |

Showing 0-0 out of 0 applications

Summary



- Filing online helps expedite
- No Special Characters (!@#\$%^&*) or Spaces
- Chrome Browser recommended
- Map/plat – Info consistent with GW-1/W-1
- More data favors the desired outcome
- Shout out for more data (shallow log data)
- Questions? Rig on Location! Call Us😊

Questions ?



Questions?