



**Statewide Rule 13:  
Surface Casing Exceptions**  
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# Session Description

- Discussion of some key terms in Statewide Rule 13
- Statewide Rule 13 Exceptions
- “Potential Flow Zones”
- Important info and Q&A



# Intent §3.13(a)(1)

- Securely anchor casing
- Isolate and seal off all useable quality water zones
- Isolate all productive zones, potential flow zones and zones with corrosive formation fluids



# Terms of Interest §3.13(a)(2)

- Zone of Critical Cement
- Protection Depth
- Stand under pressure
- Productive Zone
- Potential Flow Zone



# Statewide Rule 13 (1 of 3)

- §13(a)(1)
  - Compliance with rule 13 required for all wells spudded on or after January 1, 2014
- §13(a)(3)
  - References to wellbore diameter
- §13(a)(4)
  - References to casing standards, cement standards and zonal isolation requirements



# Statewide Rule 13 (2 of 3)

- §13(a)(6)(A-B)
  - Well Control
  - Blow Out Preventer Testing Requirements
- §13(a)(6)(C)
  - Drilling Fluid Programs



# Statewide Rule 13 (3 of 3)

- §13(a)(7)
  - Hydraulic Fracturing Treatment Casing Tests
  - Minimum Separation Wells
- §13(b)(1)(A)
  - Surface Casing Requirements > 3500'
- §13(b)(1)(I)
  - Mechanical Integrity Test of Surface Casing



# Surface Casing Requirements

- §3.13(b)(1)(B)
  - Set sufficient casing to isolate all defined usable quality water strata
  - Surface casing must be cemented
  - Cement must be circulated to surface



# Cement Compressive Strengths

- §3.13(b)(1)(D)
  - Critical Zone cement > 1200 psi in 72 hours
  - Filler cement > 250 psi in 24 hours
  - API free water separation less than 2 mL water/250 mL
  - RRC may require a better cement mixture Test slurries according to API RP 10 B
  - Sample analysis



# Alternative Requirements

- §13(b)(1)(H)
  - Operator may request authority to set more or less casing than the required protection depth
  - Alternative programs require approval by the appropriate District Director



# SWR 13 Exceptions

Choose an Application Go Log In

## 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.state.tx.us](mailto:rrconline-security@rrc.state.tx.us).

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.



# Exceptions Homepage



## Railroad Commission of Texas

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- [SWR13EX Home](#)

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### Statewide Rule 13 Exception

#### My Applications

Showing 1-1 out of 1 applications

1 10 [Excel](#) [CSV](#)

	Application Number	Application Status	Last Modified Date	Operator Number	Operator Name	API Number	Lease N
<a href="#">Actions</a>	101441	In Progress	2015-05-18	758502	SCOTT OPERATING, INC.	05937035	BERT J
	Application Number	Application Status	Last Modified Date	Operator Number	Operator Name	API Number	Lease N

Showing 1-1 out of 1 applications

1 10 [Excel](#) [CSV](#)



# Filing and Well Information



## Menu

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## Statewide Rule 13 Exception

### Filing and Well Information

### Request Information

### GAU Information

### Exception Information

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#### - Filing Information

**Enter a GW-1 Application ID and click Look Up GW-1. Additional information from the GW-1 application can be viewed.**

Is this a Tubing Only Exception Request?

Yes  No

GW-1 Application ID

[Look Up GW-1](#)

Drilling Permit Number

[Look Up DP](#)

GAU Areal Extent Unknown

#### - Operator

Operator Number (P-5 No.)

[Find](#)

Operator Address , ,

#### - Well Identification

County Name

District

Lease Name

Well Number

Field Name

#### - GPS Coordinates

# GW-1 Application ID Help

## GAU Application ID Help

If your GW-1 application was filed on, or after, March 16, 2015, you must use the *Application ID* that is displayed on your submitted GW-1 application. In some cases, this number can be different than the number that displays on the GAU Determination Letter.

If the GW-1 was filed prior to March 16, 2015, you can search for the GW-1 Application ID that corresponds to the SC Number that displays on your GAU Determination Letter.

### To Search for a GW-1 Application ID

1. Log into the RRC Online System using your UserID and password.

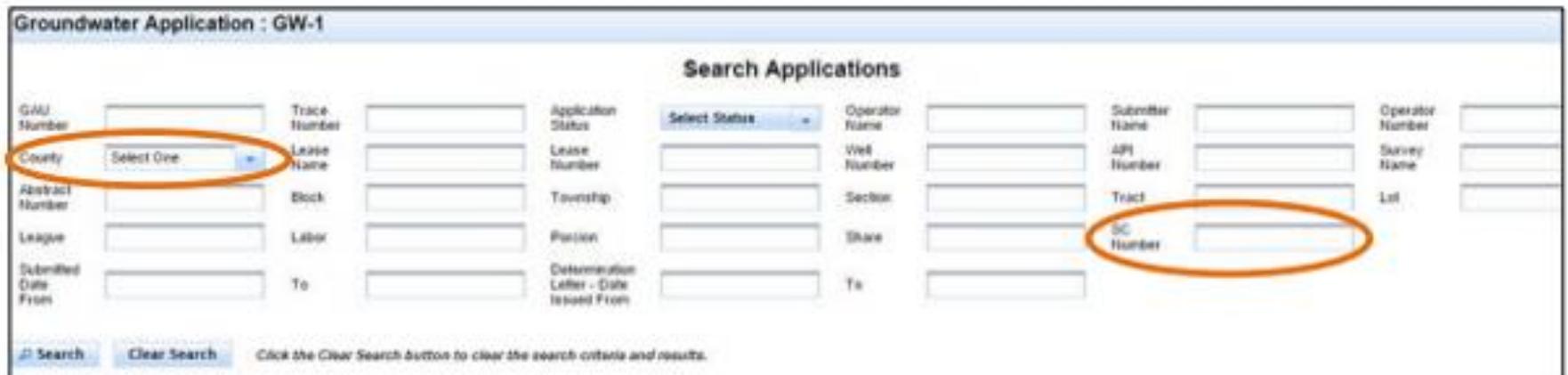


2. On the RROnline Home page, click the **Groundwater (GW-1)** link. The *Groundwater Application* page displays.



# GW-1 Application ID Number

3. In the *Search* area of the Navigation Pane, click the **All Applications** link. The *Search Applications* page displays.



Groundwater Application : GW-1

Search Applications

GAU Number	<input type="text"/>	Trace Number	<input type="text"/>	Application Status	Select Status	Operator Name	<input type="text"/>	Submitter Name	<input type="text"/>	Operator Number	<input type="text"/>
County	Select One	Lease Name	<input type="text"/>	Lease Number	<input type="text"/>	Well Number	<input type="text"/>	APl 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"/>	Lot	<input type="text"/>	Parcel	<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"/>	Tx	<input type="text"/>				

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

4. In the *SC Number* field, enter the number that displays in the *GAU File No* field on the Groundwater Protection Determination letter.
5. To narrow your search, in the *County* field, enter the county listed on the Groundwater Protection Determination letter.
6. Click **Search**. The results display. The *GW-1 Application ID* is listed in the *GAU Number* field.

# Filing and Well Info Tab

## Railroad Commission of Texas

### Statewide Rule 13 Exception

#### Filing and Well Information

Request Information

GAU Information

Exception Information

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Review

#### New Application

##### Filing Information

Enter a GW-1 Application ID and click Look Up GW-1. Additional information from the GW-1 application displays. If the GW-1 application was filed prior to March 16, 2011, more details.

Is this a Tubing Only Exception Request?

Yes  No

Is this a First Time Tubing Request?

Yes  No

GW-1 Application ID

148004

Look Up GW-1

Drilling Permit Number

Number

Look Up DP

Drilling Permit Effective Date

GAU Areal Extent Radius

Radius Distance 500

Information from the selected application is populated on the Request Information, GAU Information, Exception Information and Attachments tabs. This information cannot be edited.

Is this exception part of an Area-Wide Request?

Yes  No

Associated Application ID 8096

Select Associated Application

#### Previous SWR13E Application

Application Number	Lease Name	Well No.	Status	
8096	Lazy A Cotulla	2H	Approved	2016-05-11
8097	LAZY A COTULLA	3H	Approved	2016-05-11
8098	LAZY A COTULLA	4H	Approved	2016-05-11
8099	LAZY A COTULLA	5H	Approved	2016-05-11

Select a well to duplicate well info from...

# Request Information Tab

## Application Information

Application Number : 27    Application Status : In Progress

## Request Information

Reason for this request

Economic  Technical  Other

Please explain

250 characters remaining.

Is this a proposed injection or disposal well?

Yes  No

Is this a Minimum Separation well?

Yes  No

Have there been any blowouts within a mile of this wellsite?

Yes  No

Are there any Injection or Disposal wells within 1/4 mile of the proposed well location?

Yes  No

Are there any water wells within 1/4 mile of this proposed well location?

Yes  No

Has the well been drilled and completed?

Yes  No

Remarks for the application

500 characters remaining.

# GAU Information Tab

## Statewide Rule 13 Exception

Filing and Well Information

Request Information

GAU Information

Exception Information

Attachments

Review

*Before navigating to the next tab, click Save and Continue to update the application information.*

### Application Information

Application Number : 101442    Application Status: In Progress

### GAU Information

GAU Areal Extent    Radius

Radius Distance    200

Base of Usable Quality Water (feet, determined by GAU)    111

Recommendation Statements

The interval from the land surface to a depth of BUQ feet must be protected.

The base of usable-quality water-bearing strata is estimated to occur at a depth of BUQ feet at the site of the referenced well.

Save and Continue

Cancel

# Exception Information Tab

Filing and Well Information Request Information **Exception Information** Attachments Review

Before navigating to the next tab, click Save to update the application information.

**Application Information**

Application Number : 382 Application Status: In Progress

**Exception Type**

Exception Request:   Tubing

Alternate Program Request:  Drilling Fluid Program  Non-API Cement  Other

**Proposed Casing and Cementing Program**

No Casing Program information is required

Save and Continue Cancel

Casing Type: Intermediate Casing Cementing Program  Conventional  Multi-Stage

Hole Size (in.)	<input type="text" value="0.00"/>		
Casing O.D. (in.)	<input type="text" value="0.00"/>		
Grade	<input type="text"/>	<b>Lower Casing Values for Tapered String</b>	
Weight (lb.)	<input type="text" value="0.00"/>	Hole Size (in.)	<input type="text" value="0.00"/>
Shoe Setting Depth (ft.)	<input type="text" value="Number"/>	Casing O.D. (in.)	<input type="text" value="0.00"/>
Multi-Stage Tool Depth (ft.)	<input type="text" value="Number"/>	Grade	<input type="text" value="Text"/>
Number of Centralizers	<input type="text" value="Number"/>	Weight (lb/ft.)	<input type="text" value="0.00"/>
Centralizers Placement	<input type="text"/>	Setting Crossover Depth (ft.)	<input type="text" value="Number"/>



# Exception Information Tab

Cementing			
<b>Slurry: Tail/Critical Cement</b>		<b>Slurry: Lead/Filler Cement</b>	
Cement Type	Class H	# of Sacks	550
Yield (cu. ft./sk.)	1.07	Cement Additives	retarder, ss-200
24-Hr. Comp. Strength (psi)	2750	72-Hr. Comp. Strength (psi)	3620
Cement Column Height (ft.)	7500	Top of Cement (ft.)	9000
Free Water Content (mL water per 250mL cement)	1.0	% Excess Cement	25
Cement Type	tx lehigh	# of Sacks	1100
Yield (cu. ft./sk.)	1.75	Cement Additives	d-air, retarder
24-Hr. Comp. Strength (psi)	850	72-Hr. Comp. Strength (psi)	1700
Cement Column Height (ft.)	8000	Top of Cement (ft.)	1000
Free Water Content (mL water per 250mL cement)	0.5	% Excess Cement	50

Data Field Name	Description	Data type
Cement Type	Classification of cement slurry (e.g. Class A, Class H, 15:85 POZ, TX Lehigh, etc.)	Text
# of Sacks	Total number of cement sacks	Number (up to 2 decimals)
Yield	The yield of the mixed cement in cubic ft. per sack of cement when mixed in accordance with API Spec. 10A.	Number (up to 2 decimals)
Cement Additives	Cement additive names and descriptions, and volume of additive in cement	Text ("N/A" or "Neat" is acceptable)
24-hr Comp. Strength	The measured compressive in 24-hours strength from crush test performed in accordance with API RP 10B-2.	Number (up to 2 decimals)
72-hr Comp. Strength	The measured compressive in 72-hours strength from crush test performed in accordance with API RP 10B-2.	Number (up to 2 decimals)
Cement Column Height	The calculated annular cement column height in feet from the casing shoe to the top of the cement column assuming 0% washout or gauge borehole.	Number (rounded to whole number)
Top of Cement	The calculated top of cement in feet below ground surface inclusive of any washout factors and excess cement volume.	Number (rounded to whole number)
Free Water Content	The free water content measured in mL fluid per 250 mL cement slurry in accordance with API RP 10B-2.	Number (up to 2 decimals)
% Excess Cement	The excess volume of cement to be pumped as a percentage of the prescribed volume of cement.	Number (up to 2 decimals)

# Attachments Tab

## Application Information

Application Number : 441    Application Status: In Progress

## Attachments

Attach the necessary files. Then click the **Review** tab to continue application process.

**Mandatory File:** GAU Recommendation Letter

## Upload Files

Add Attachments \* Select One

Comments

+ Choose

File	File Name	Size	Type	Comments	View File	Remove
No records found.						

## Upload Files

IMPORTANT: Click Choose automatically upload the selected attachments.

Add Attachments \* GAU Recommen

Comments

+ Choose



Jellyfish.jpg

757.5  
KB

x

File	File Name	Size	Type	Comments	view file	Remove
GAU Recommendation Letter	Desert.jpg	845941	image/jpeg			<button>Remove</button>

# Application Review Tab

## Statewide Rule 13 Exception

Filing and Well Information Request Information Exception Information Attachments **Review**

- Exception Information Tab: Surface Casing: CONVENTIONAL: Slurry: Lead/Filler Cement: If any one is entered, then all are required for Cement Type, # of Sacks, Yield, Cement Additives, 24 Hr Comp Strength, 72 H2 Comp Strength, Cement Height, Top of Cement, Free Water content, % Excess Cement.
- Exception Information Tab: Intermediate Casing: CONVENTIONAL: Required are Hole size, Casing O.D., Grade, Weight, Shoe Setting Depth, Number of Centralizers, Centralizers Placement.
- Exception Information Tab: Intermediate Casing: CONVENTIONAL: Slurry: Tall/Critical Cement: Required are Cement Type, # of Sacks, Yield, Cement Additives, 24 Hr Comp Strength, 72 H2 Comp Strength, Cement Height, Top of Cement, Free Water content, % Excess Cement.
- Exception Information Tab: Production Casing: MULTISTAGE: Multi-Stage Tool: Slurry: If any one is entered, then all are required for Cement Type, # of Sacks, Yield, Cement Additives, 24 Hr Comp Strength, 72 H2 Comp Strength, Cement Height, Top of Cement, Free Water content, % Excess Cement.

### Application Information

Application Number : 42 Application Status : In Progress

### Review Application

Click Review to check the application for errors. You can finish the application process after all errors have been corrected.

[Review](#)

View application as PDF [View](#)

### Review Application

Click **Review** to check the application for errors. You can finish the application process after all errors have been corrected.

[Review](#)

View application as PDF [View](#)

### Terms And Conditions



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

[Finish and Pay](#)

[Cancel](#)

# Exception Data Sheet



**RAILROAD COMMISSION OF TEXAS**  
**STATEWIDE RULE 13 EXCEPTION APPLICATION/ALTERNATIVE REQUEST**  
 Surface Casing: 13(b)(1)(H), Tubing: 13(b)(4)(B), Drilling Fluid: 13(a)(6)(C), or Non-standard Cement 13(b)(1)(D)

1. Operator:	2. P-5 No.:	3. Lease Name:	4. Well No.:
5. Street Address:			
6. RRC District:	7. Drill Permit No.:		
8. Field Name:	9. County:	10. Proposed Depth:	<input type="checkbox"/> TVD <input type="checkbox"/> MD
11. Well Location: Latitude:		Longitude:	Datum:
Survey Name:		Abstract No:	Block/Township:
Section:		12. GAU No.: (attach letter) Recommendation Type (below)	
13. Usable-Quality Water (determined by GAU):		ft.	
<input type="checkbox"/> Well <input type="checkbox"/> Lease <input type="checkbox"/> Survey <input type="checkbox"/> Pad <input type="checkbox"/> Radius:		Separation points: ft.	
14. Exception Request: <input type="checkbox"/> Short Surface Csg <input type="checkbox"/> Excess Surface Csg <input type="checkbox"/> Single-string <input type="checkbox"/> Tubing <input type="checkbox"/> Area-wide <sup>2</sup>			
15. Alternate Program Request: <input type="checkbox"/> Drilling Fluid Program <input type="checkbox"/> Non-API Cement <input type="checkbox"/> Other:			
16. Reason for this request: <input type="checkbox"/> Economic <input type="checkbox"/> Technical <input type="checkbox"/> Other Please explain:			
First-time requests for exception to tubing requirements outlined in 13(b)(4)(A) will be granted for a period of 180 days, 13(d)(2)			
17. Is this a proposed injection or disposal well? <sup>3</sup> <input type="checkbox"/> Yes <input type="checkbox"/> No		18. Is this a Minimum Separation well? <sup>4</sup> <input type="checkbox"/> Yes <input type="checkbox"/> No	
19. Are there any water wells within ¼ mile of this proposed well location? <sup>5</sup> <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, provide information requested below			
Type of water well:		Depth:	Distance:
20. Are there any INJECTION or DISPOSAL wells within ¼ mile of the proposed well location? <sup>6</sup> <input type="checkbox"/> Yes <input type="checkbox"/> No			
If Yes, list names and depths of all formations permitted for INJECTION OR DISPOSAL within ¼ miles of the well location: <sup>7</sup>			
21. Have there been any blowouts within one mile of this wellsite? <sup>8</sup> <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, name operator(s), lease(s), and date(s) blowout(s) occurred:			

**IF CEMENT IS NOT CIRCULATED TO THE GROUND SURFACE AS REQUIRED BY THIS EXCEPTION, YOU MUST CONTACT THE DISTRICT OFFICE IMMEDIATELY AND FOLLOW THE PROCEDURES SET OUT IN RULE 13(B)(2)(g)(III) OR AS REQUIRED BY THE DISTRICT OFFICE.**

**22. Proposed Casing and Cementing Program (if more space is needed, use supplemental table on page 3)**

	Surface Casing/Single-String	Intermediate Casing	Production Casing
<b>LEAD-FILLER CEMENT</b>			
Hole Size (in.), Casing O.D. (in.)			
Grade, Weight (lb/ft.)			
Setting Depth (ft.)			
Multi-Stage Tool Depth (ft.)			
Centralizers (no. & placement)			
Cement Type			
# of Sacks and Yield (cu. ft./sk)			
Cement Additives			
24/72-Hr. Comp. Strength (psi)			
Height/TOC (ft.), % Excess			
Free Water Content <sup>9</sup> (mL water per 250 mL cement)			
<b>TAIL/CRITICAL CEMENT</b>			
Cement Type			
# of Sacks and Yield (cu. ft./sk)			
Cement Additives			
24/72-Hr. Comp. Strength (psi)			
Height/TOC (ft.), % Excess			
Free Water Content <sup>9</sup> (mL water per 250 mL cement)			

**PROVISIONS APPLICABLE TO RULE 13 EXCEPTIONS:**

1. REQUESTS FOR EXCEPTIONS TO STATEWIDE RULE 13 SUBMITTED AFTER THE WELL HAS BEEN DRILLED OR COMPLETED MAY RESULT IN ENFORCEMENT ACTION AGAINST THE OPERATOR.
2. For area-wide exception requests, please provide additional information which clearly defines the area to be exempted. Area-wide approvals are NOT allowed for short surface casing applications (only approved on a well-by-well basis). Note: District Offices are not required to grant area-wide exceptions.
3. Caution: If this well is being drilled for injection or disposal purposes, a(n) injection/disposal well permit may be denied unless surface casing is set and cemented through all zones of usable-quality groundwater.
4. A Minimum Separation Well, further defined in section 13(a)(2)(L), is a well in which hydraulic fracturing treatments will be conducted AND for which: the vertical distance between BUGW and the top of the formation to be fracture stimulated is less than 1000 ft. or for which the District Director has determined there to be inadequate separation between the BUGW and the top of the formation to be fracture stimulated.
5. Review applications 1-3 (Groundwater Database, Submitted Driller's Report, and Brackish Groundwater Database) at the following link to determine location(s) of water wells within ¼ mile of the proposed well: <http://wild.tdwb.texas.gov/>.
6. Refer to the Railroad Commission of Texas Public GIS map viewer to locate injection and disposal wells within ¼ mile of the well(s) mentioned on this application: <http://www.rrc.state.tx.us/data/online/gis/index.php>.
7. Review W-14 or H-1a applications at (<http://www.rrc.state.tx.us/data/online/OGImagedRecordsQuery.php>) to determine permitted injection/disposal zones for wells within ¼ mile of the proposed well. Additionally, refer to Rule 13 Formation Tables provided on the RRC website for information regarding saltwater, H2S, and other notable formation depths by county. (<http://www.rrc.state.tx.us/environmental/rule13/index.php>). Statewide Rule 13 may require cementing across these formations.
8. Blowout records can be found at the following URL: <http://www.rrc.state.tx.us/data/drilling/blowouts/index.php>.
9. Free water content for tail and critical cement may be provided based on lab data available at the time of submission. If additional lab analyses are required by the District Office, slurries must be tested according to API RP 10B-2, per 13(b)(1)(D)(iii).
10. Notify District Office at least 8 hours prior to setting and cementing casing.
11. The alternative surface casing program authorized by this letter is subject to the condition that drilling fluid used while drilling to the base of usable quality groundwater have a salinity of 3000 ppm TDS or less and be conditioned to form a filter cake sufficient to prevent infiltration into the protected water while drilling with fluid having a salinity greater than 3000 ppm TDS below the base of usable quality groundwater to the approved surface casing depth. The use of oil-based and emulsion drilling fluids are prohibited until casing is set and cemented across the base of usable quality groundwater.
12. Note: The following attachments may be requested by the District Office:
  - a. Proposed wellbore diagram or cementing proposal
  - b. Lab reports containing compressive strength and free water data for Lead and/or Tail Slurry
  - c. Any other information that may be required by the District Office.
13. Please note that a copy of the approved application form must be kept on location during all phases of drilling and/or plugging operations. Once approved, changes CANNOT be made to the Proposed Casing and Cementing Program on the original application without additional approval from the District Office.

OPERATOR CONTACT INFORMATION			
Signature: X	Name:	Title:	
Date:	Phone:	Fax:	
Email Address (optional):			

RRC District Office Action—FOR RRC USE ONLY.		Ref. No:
TUBING EXCEPTION: <input type="checkbox"/> Approved <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Denied	By:	Date:
SURFACE CASING EXCEPTION: <input type="checkbox"/> Approved <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Denied	By:	Date:
DRILLING FLUID PROGRAM: <input type="checkbox"/> Approved <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Denied	By:	Date:
ALTERNATE CEMENT PROGRAM: <input type="checkbox"/> Approved <input type="checkbox"/> Approved as Modified <input type="checkbox"/> Denied	By:	Date:
Remarks/Modifications:		

# Exception Data Sheet

## OPERATOR CONTACT INFORMATION

Signature: **X** \_\_\_\_\_ Name: \_\_\_\_\_ Title: \_\_\_\_\_  
Date: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Email Address (optional): \_\_\_\_\_

### RRC District Office Action—FOR RRC USE ONLY.

Ref. No:

#### TUBING EXCEPTION:

Approved  Approved as Modified  Denied

By:

Date:

#### SURFACE CASING EXCEPTION:

Approved  Approved as Modified  Denied

By:

Date:

#### DRILLING FLUID PROGRAM:

Approved  Approved as Modified  Denied

By:

Date:

#### ALTERNATE CEMENT PROGRAM:

Approved  Approved as Modified  Denied

By:

Date:

### Remarks/Modifications:



# “Potential Flow Zones”

- §13(a)(2)(N)
  - RRC will establish and maintain list of potential
  - flow zones and corrosive zones by county
- List is available on website at:
  - <http://www.rrc.texas.gov/oil-gas/compliance-enforcement/rule-13-geologic-formation-info/>
- List to be revised as additional information becomes available



# Formation Tables

- Formation lists subject to change
- Listed formation tops for reference only
- Compliance with Rule 13 will be based on formation tops listed on completion report



# Example Formation Table

All listed formations require isolation if encountered in well

Mitchell County			
Formation	Shallow Top	Deep Top	Remarks
Santa Rosa	600	600	possible lost circulation
Yates	600	1,250	overpressured, possible flows
7 Rivers	1,300	1,300	
Tubb	2,000	2,000	
San Andres	1,500	2,400	high flows, H2S, corrosive
Glorieta	2,400	2,700	
Wichita	3,300	3,300	
Clearfork	2,500	3,400	
Coleman Junction	3,100	3,600	possible lost circulation
Wolfcamp	4,800	5,300	
Strawn	3,200	5,850	
Odom	6,800	6,900	
Mississippian	6,300	7,900	
Ellenburger	7,200	8,100	



# Example Formation Table

<b>KLEBERG COUNTY</b>			
<b>Formation</b>	<b>Shallow Top</b>	<b>Deep Top</b>	<b>Remarks</b>
Miocene / Lagarto / Oakville	1400	6200	Kingsville Field area H2S Injection/Disposal
	3000	3300	
	2600	6200	
Catahoula Anahuac	2800	4670	Canelo Field area H2S Injection/Disposal
	3650	3850	
	2800	4670	
Catahoula Frio	2800	14050	Canelo Field area H2S Injection/Disposal
	8550	8750	
	2800	7500	
Vicksburg	6800	8700	
Jackson	11250	11250	

All listed formations require isolation if encountered in well



# “Potential Flow Zones”

- Notification in Drilling Permits
  - RRC query will flag with a permit restrictions any new drill permit application filed on or after 01-01-2014, as any amended new drill application that does not have a spud date prior to 01-01-2014
  - The restriction will state that “This well must comply with the new Rule 13 requirements concerning the isolation of any potential flow zones and zones with corrosive formation fluids. See approved permit for those formations identified for the county in which you are drilling the well.”
  - The approved permit will print out with the information stored in the county table, which is available on the RRC’s Internet website.



# Tubing Exceptions

- §13(b)(4)(A-B) – Tubing
  - All flowing oil wells must be equipped with tubing
  - Exceptions up to 180 days may be administratively granted by the director:
    - Fee is required for tubing exception. No extra fee if already paid for SWR-13 Casing Exception.
    - Subsequent extensions require a RRC order (field rule or individual well)
    - If tubing extension granted by field rule, must pay for field rule tubing extension through same tubing exception process



# Summary

- Statewide Rule 13 – designed to protect UQW and maintain well control
- Construct wells to prevent Sustained Casinghead Pressure (SCP) and maintain casing integrity
- Call the District Office for assistance



# Common Questions

- **Q:** Most new Eagle Ford wells are not required to be equipped with tubing for the first six months. Will this apply to all new wells?
  - **A:** Starting January 1, 2014, an administrative exception to install tubing in a flowing well may be granted by the District Director (no field rule amendment required) for 180 days. If a special field rule exception already has been issued for a particular field, that field rule trumps SWR 13, and compliance is based on that field rule.



# Common Questions

- **Q:** For purposes of documentation and compliance, who is responsible for providing certification of BOP equipment--the rig owner or operator?
  - **A:** The operator to whom the drilling/re-entry permit was issued (or the current well operator, if performing a workover) is responsible for obtaining and providing to the RRC upon request the well control equipment certification.



# Common Questions

- **Q:** Does the Groundwater Advisory Unit recommendation serve as District Office approval to set surface casing deeper than 3,500'?
- **A:** No; separate authorization must be obtained from the District Office to set surface casing deeper than 3,500', even if the protection depth is deeper than 3,500'. Authorization may be given on an area-wide basis (e.g. radial area, survey & abstract, etc.)



# Common Questions

- **Q:** Does an operator need to obtain an SWR 13 exception from the District Office to set surface casing below 3500 feet?
  - **A:** No, approval to set surface casing below 3,500' is not an exception. However, the operator must notify and receive approval from the District Office prior to setting surface casing deeper than 3,500'. The District Director must approve the method for protection of UQW and maintaining well control. Exceptions will be required to set surface casing greater than 200' below the BUQW.



# Common Questions

- **Q:** If a disposal/injection permit is issued for a location within  $\frac{1}{4}$  mile of a proposed new well location, is that new permitted disposal/injection zone required to be isolated in the new well?
  - **A:** Yes, disposal/injection permits that have been submitted to the Commission are available on the Commission web site.



# Common Questions

- **Q:** How does an operator determine if a disposal/injection well is within  $\frac{1}{4}$  mile of a new well proposed location and what is required if a disposal /injection well is identified?
- **A:** Research RRC Public GIS site and isolate the disposal/injection interval with cement in new well in accordance with Statewide Rule 13.



# Common Questions

- **Q:** Does the new rule change the requirements for obtaining a surface casing exception for wells producing at or above the protection depth or for single-string wells?
  - **A:** No; a SWR 13 exception is required for all wells producing at or above the BUQW and single-string wells deeper than 1,000'.



# Common Questions

- **Q:** Can a person drill with brine drilling mud through uncased protection depths to prevent washout of shallow salt beds?
- **A:** The adoption preamble for SWR 13 states that potassium chloride (KCl) may be added to freshwater drilling mud prior to setting surface casing. Permission to use other brines to drill through UQW protection depths may be granted as part of SWR 13 Surface Casing exception request after showing that the drilling fluid program will provide filter cake protection through the UQW interval, or may be added to field rules through the hearing process.



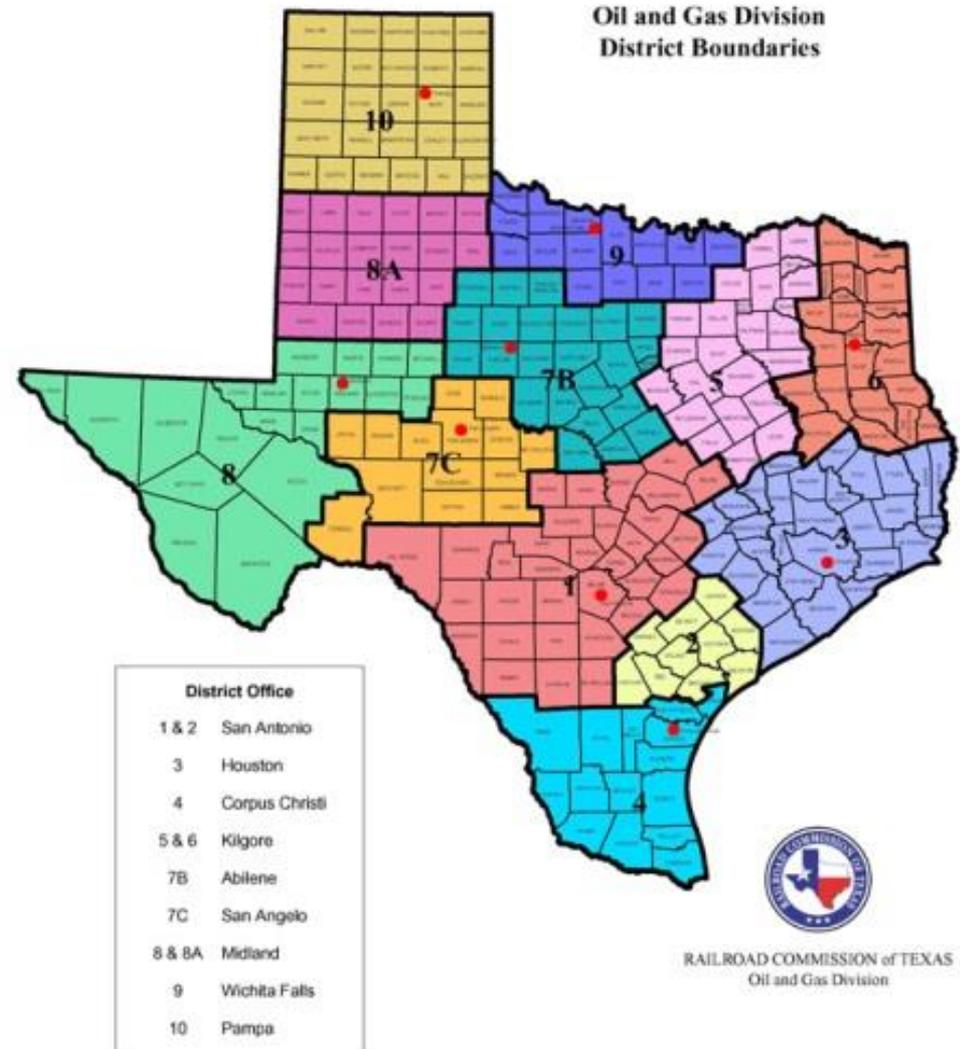
# Common Questions

- **Q:** Does it count towards the 360 rotating hours when drilling is taking place in the horizontal section and the drill string is “sliding”.
- **A:** No; hours are only counted when the drill string is actually rotating.



# Oil and Gas District Offices

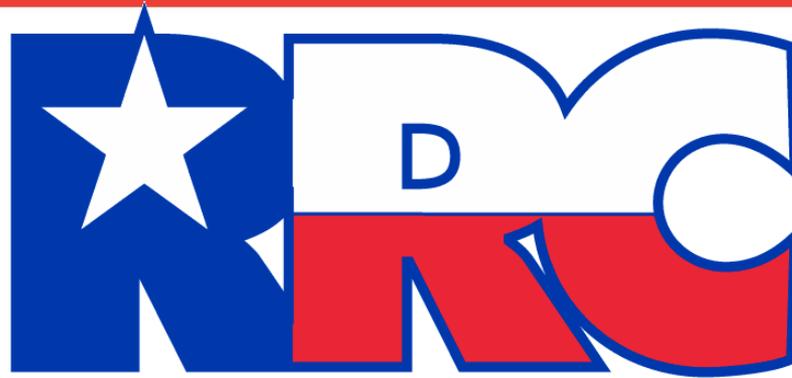
Abilene  
Corpus Christi  
Houston  
Kilgore  
Midland  
Pampa  
San Angelo  
San Antonio  
Wichita Falls



# District Offices

<u>District</u>	<u>City</u>	<u>Address</u>	<u>Phone</u>
1 & 2	San Antonio	115 East Travis St, Suite 1610 San Antonio, TX 78205	(210) 227-1313
3	Houston	1706 Seamist Dr, Suite 501 Houston, TX 77008	(713) 869-5001
4	Corpus Christi	10320 IH 37 Corpus Christi, TX 78410	(361) 242-3113
5 & 6	Kilgore	2005 North State Highway 42 Kilgore, TX 75662	(903) 984-3026
7B	Abilene	3444 North First St, Suite 600 Abilene, TX 79603	(325) 677-3545
7C	San Angelo	622 South Oakes St, Suite J San Angelo, TX 76903	(325) 657-7450
8 & 8A	Midland	10 Desta Dr, Suite 500 E Midland, TX 79705	(432) 684-5581
9	Wichita Falls	5800 Kell Blvd, Suite 300 Wichita Falls, TX 76310	(940) 723-2153
10	Pampa	200 West Foster, Room 300 Pampa, TX 79065	(806) 665-1653





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