Statewide Rule 13 Workshop

“Casing, Cementing, Drilling Well Control, and Completion Requirements”

Houston, Texas

December 19, 2013

RRC Mission Statement

To serve Texas by our stewardship of natural resources and the environment, our concern for personal and community safety, and our support of enhanced development and economic vitality for the benefit of Texans.

Statewide Rule 13

Intent §3.13(a)(1)

- **Securely anchor casing in the hole to effectively control the well at all times**
- **Isolate and seal off all useable quality water zones to prevent contamination**
- **Isolate all productive zones, potential flow zones and zones with corrosive formation fluids to prevent vertical migration of fluids (including gases) behind pipe.**

Statewide Rule 13

Terms of Interest §3.13(a)(2)

Zone of Critical Cement

Surface - bottom 20%, < 1000’ or 300’

Intermediate – bottom 20% or 300’ above casing shoe or top of highest proposed productive zone, whichever is less (shallow)

Protection Depth* – determined by Groundwater Advisory Unit (GAU) letter

Stand under pressure – hydrostatic/no added pressure allowed

Productive Zone – zone with *commercial quantities* oil/gas

Potential Flow Zone – zone requiring isolation to prevent sustained pressure on casing annuli and presents a threat to subsurface water or oil, gas or geothermal resources

*GAU may recommend a protection depth to cover zones that contain TDS concentrations greater than 3,000 ppm based on water use in the area. GAU will consider new data (e.g., new log data) if you believe protection depth should be adjusted.

Statewide Rule 13

Current §3.13(b)(1)

- **All casing to be cemented in a well must be steel casing that has been hydrostatically tested to a pressure equal to the maximum pressure which it will be subjected.**

- **Cemented casing must be tested prior to drillout to 0.2 psi/ft (new rule requires 0.5 psi/ft) per length of casing to a maximum of 1500 psi after allowing the critical zone slurry to reach a compressive strength of at least 500 psi.**

Statewide Rule 13

Current §3.13(b)(1)

- **Wellhead must maintain surface control with all components tested to maximum anticipated pressure**
- **Blowout Preventer or Control Head must be installed when surface casing is set**
- **Diverters required when drilling underbalanced**

Statewide Rule 13

Current §3.13(c)(5-6)
For Bay & Offshore Wells

Casinghead required on land and bay wells with adequate access and valves to enable pumping between any two casing strings

Christmas tree required on all non-pumping wells

- Working pressure equal to or greater than surface pressure
- Two master valves required on wells in excess of 5000 psi
- (New) Bay and offshore wells require two master valves, one master valve and one wing valve, or one master and two wing valves.

Statewide Rule 13

Current §3.13(c)(7-9)
For Bay & Offshore Wells

- Bay and offshore wells to be equipped with storm choke or safety valve installed in tubing
- Pipeline shut off valves required for bay and offshore wells
- Well control training (API, IADC or equivalent) required for all pushers, drilling superintendents and operators' representatives require well control training

Statewide Rule 13

Surface Casing Requirements §3.13(b)(2)

- Set sufficient casing to isolate all defined usable quality water strata
- Surface casing must be cemented
- Cement must be circulated to surface

Statewide Rule 13

Current Surface Casing Requirements §3.13(b)(2)

- Amount required formerly by TCEQ – now RRC's Groundwater Advisory Unit (GAU)
- Pump and Plug Method – Contact District Office if cement not circulated to surface
- Cement Quality

  Stand under pressure until

  critical cement > 500 psi @ drill out

  filler cement >100 psi @ drill out

Statewide Rule 13

Cement Compressive Strengths §3.13(b)(2)(C)

- Critical Zone cement > 1200 psi in 72 hours
- Filler cement > 250 psi in 24 hours
- API free water separation less than
  6 mil/250mils (new rule 2 mil/250mils)
- RRC may require a better cement mixture
- Test slurries according to API RP 10 B

HALLIBURTON

South Texas Area Laboratory • 850 Commerce Rd • Alice, Texas 78332
Phone 361.660.1321 • Fax 361.664.0424

District #4 Railroad Commission Surface Casing Cement Test Results
First Quarter 2008 (January - March 2008)

I. Filler Cement Requirements

A. Minimum compressive strength at drill should be 100 psi at 80 Degrees F.

B. Minimum compressive strength in 24 hours should be 250 psi at 80 Degrees F.

C. Free water should be 6 cubic centimeters or less based on API test.

II. Critical Zone Cement Requirements

A. Minimum compressive strength at drill out should be 500 psi at a temperature within 10 degrees of the temperature at top of critical zone.

B. Minimum compressive strength in 72 hours should be 1200 psi at a temperature within 10 degrees of the temperature at top of critical zone.

C. Free water should be 6 cubic centimeters or less based on API test.

III. Filler Cement Test at 80 Degrees F

A. Modified Halliburton Light Standard Tested @ 80°F

85% Capitol Class "A"	Slurry Weight:	12.40 lb/gal
15% San Miguel Pozmix	Yield:	2.09 cuft/sk
8% Bentonite	Water Ratio:	11.60 gal/sk
3% Salt		

Time to 100 psi:	8 Hr. 29 Min.
24 Hour Compressive Strength	330 psi

Free Water: < 1.0 cc's @ 80°F

B. Standard with Gel and Salt Tested @ 80°F

Capitol Class "A"	Slurry Weight:	13.2 lb/gal
8% Bentonite Gel	Yield:	1.93 cuft/sk
3% Salt	Water Ratio:	10.40 gal/sk

Time to 100 psi:	5 Hr. 16 Min.
24 Hour Compressive Strength	465 psi

Free Water: < 1.0 cc's @ 80°F

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Phone 361.660.1321 • Fax 361.664.0424

IV. Critical Zone Cement Tests:

A. Capitol Class "A" Neat Tested at 90° F

Capitol Class "A"	Slurry Weight:	15.6 lb/gal
	Yield:	1.18 cuft/sk
	Water Ratio:	5.2 gal/sk
Time To 500 psi:	4 Hr. 39 Min.	
Compressive Strength:		
	72 Hours -	3260 psi

Free Water: < 1.0 cc's @ 80°F

NOTE: Addition of 1%-2% CaCl2 will increase the existing values of Compressive Strength

B. Capitol Class H + 2% Cacl2 Tested at 90° F

Capitol Class "H"	Slurry Weight:	16.4 lb/gal
2% CaCl2	Yield:	1.08 cuft/sk
	Water Ratio:	4.35 gal/sk
Time To 500 psi:	6 Hr. 44 Min.	
Compressive Strength:		
	72 Hours -	3500 psi

Free Water: < 1 cc's @ 80°F

V. Location of Cement and Pozmix in South Texas.

Capitol Class A Cement: Alice, Mission, Laredo, Texas

San Miguel Pozmix (50 lb/sk): Alice, Mission, Laredo, Texas

Statewide Rule 13

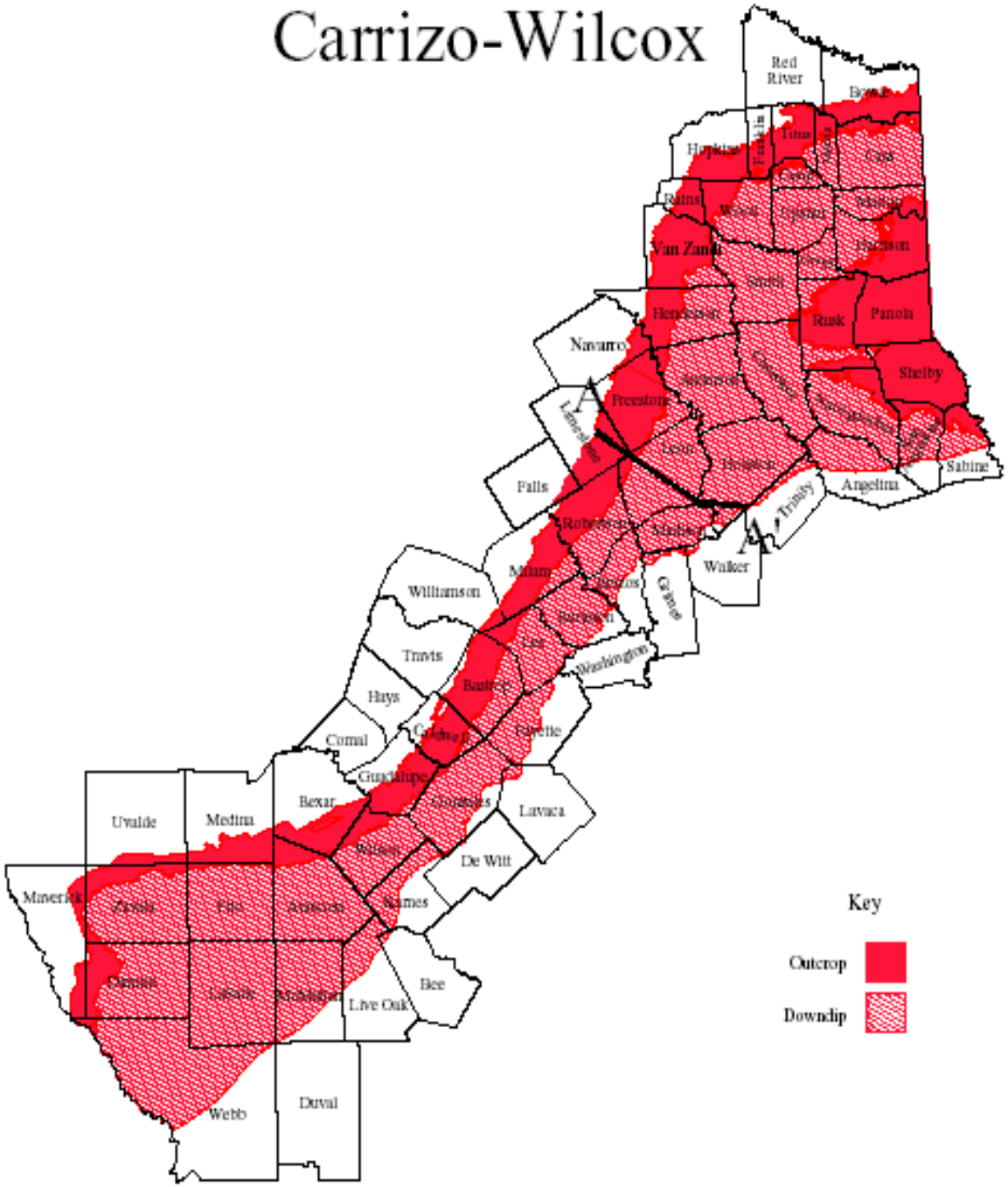
Alternative Surface Casing Requirements §13(b)(2)(G)

- Operator may request authority to set more or less casing than the required protection depth
- Alternative programs require approval by the appropriate District Director

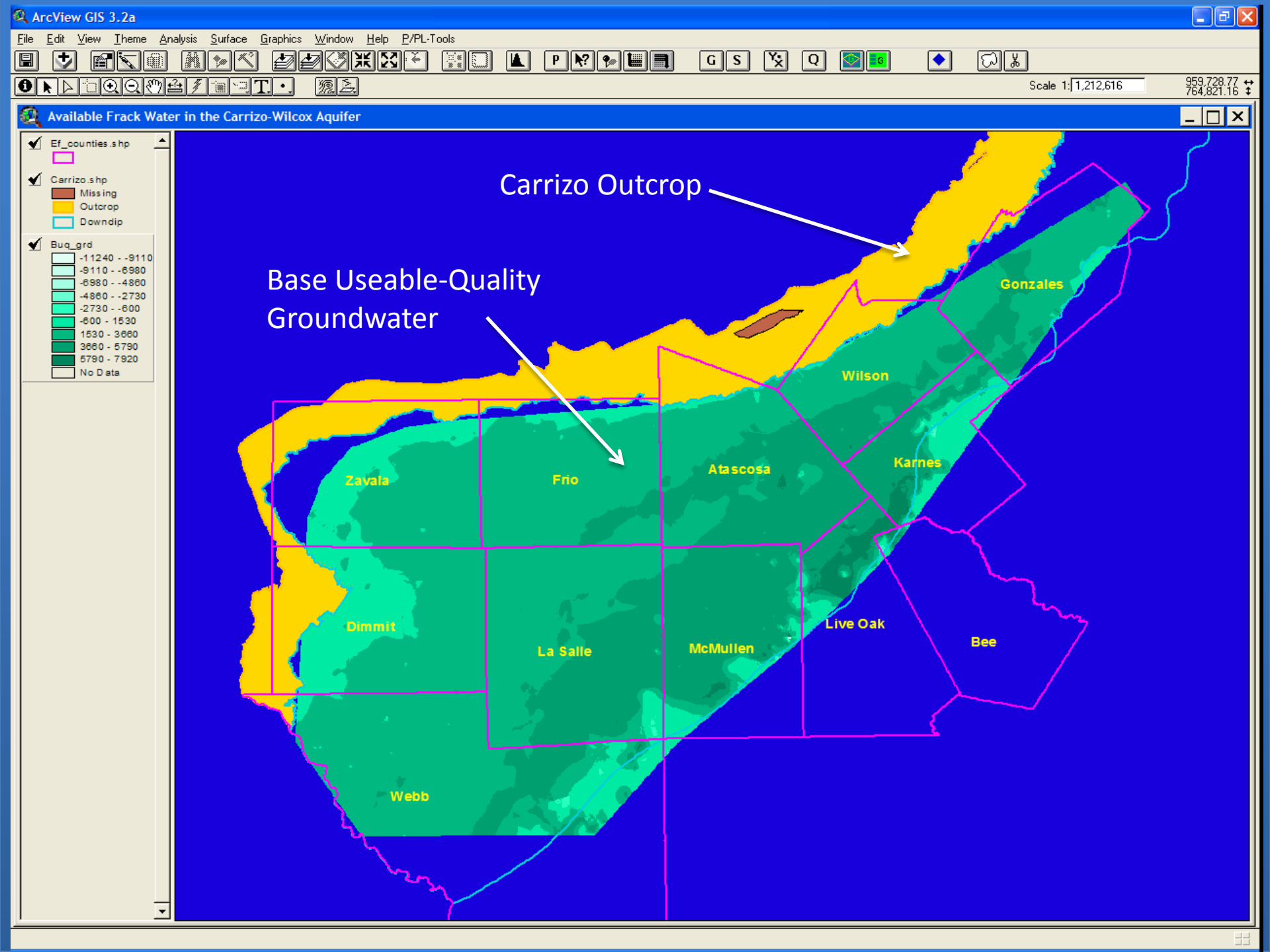
Statewide Rule 13

Alternative Surface Casing Requirements §13(b)(2)(G)

- **Written application to District Director**
- **District Director may approve, modify, or reject the proposed program**
- **If rejected, operator may request hearing**
- **Must be obtained before cementing**
- **When is an application needed?**
  - **Surface casing set shallower than BUQW**
  - **Surface casing set 200’ deeper than BUQW**
- **New rule requires approval prior to setting surface deeper than 3500’**



Deep UQW Carrizo Aquifer - Alternate Surface Casing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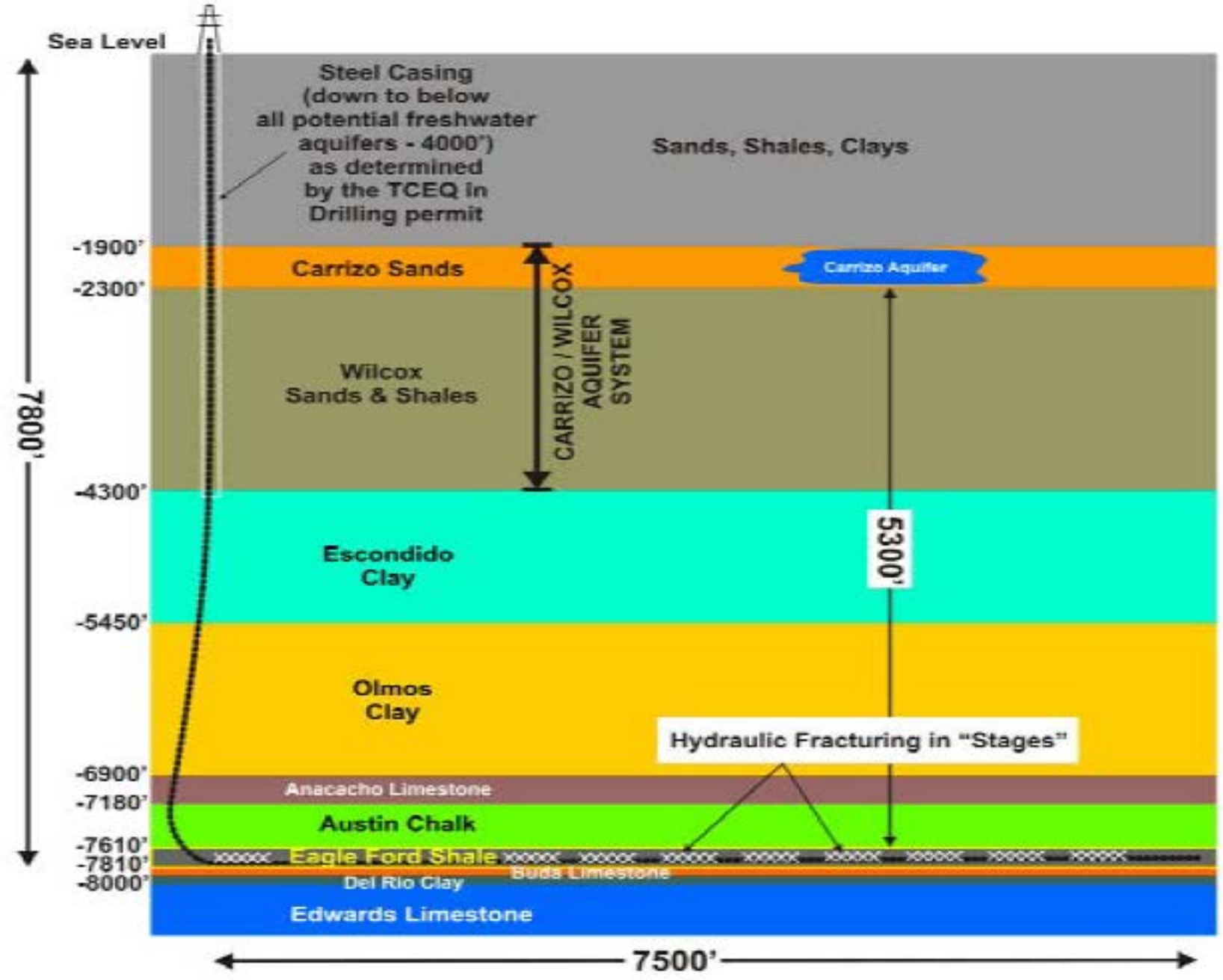
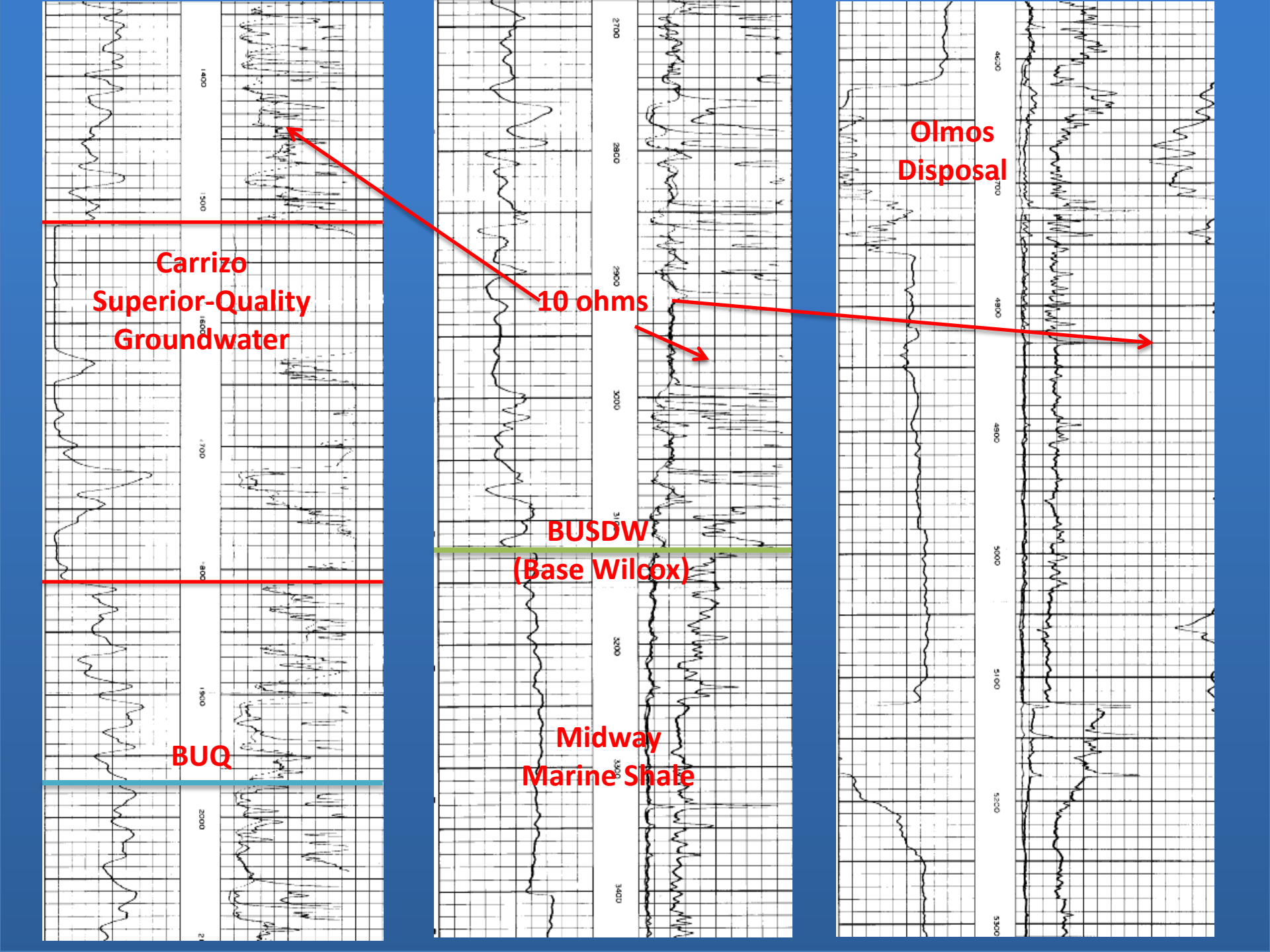
Available Frack Water in the Carrizo-Wilcox Aquifer
Ef_counties.shp
Carrizo.shp
Missing
Outcrop
Downdip
Buq_grd
-11240 - -9110
-9110 - -6980
-6980 - -4860
-4860 - -2730
-2730 - -600
-600 - 1530
1530 - 3660
3660 - 5790
5790 - 7920
No Data
Carrizo Outcrop
Base Useable-Quality Groundwater
Gonzales
Wilson
Karnes
Atascosa
Frio
Zavala
Dimmit
La Salle
McMullen
Live Oak
Bee
Webb

Typical Eagle Ford Horizontal Well & Stratigraphy




Carrizo
Superior-Quality
Groundwater
10 ohms
Olmos
Disposal
BUSDW
(Base Wilcox)
BUQ
Midway
Marine Shale

Statewide Rule 13

New in Rule 13

§13(a)(1)

- Compliance with new rule required for all wells **spudded** on or after January 1, 2014.

§13(a)(3-4)

- Updates references to cement quality, cementing, well equipment, well casing centralizers and well control, and **sets minimum cement sheath thickness:**
  - 0.75” for surface casing string (nominal OD)
  - 0.50” for subsequent casing strings (nominal OD)

Statewide Rule 13

New in Rule 13

§13(a)(C)(ii)

- Operators must use air, fresh water or fresh water-based drilling mud until surface casing is set and cemented in a well to protect usable quality water

§13(b)(1)(A)

- Requires RRC approval before setting surface casing to a depth greater than 3,500 feet

- GAU letter will contain statement that surface casing set deeper than 3,500’ based on GAU recommendation will require DO approval.

Statewide Rule 13

New in Rule 13

§13(b)(1)(I)

- Operators must verify the mechanical integrity of any string of casing protecting UQW for wells in which the rotating time for the next casing string (either the intermediate casing string or production casing string) exceeds 360 hours* to ensure that the drilling inside the casing did not damage casing integrity

- Integrity can be demonstrated by casing caliper, casing inspection log, pressure test, etc.

*Rotating hours are based on the cumulative time the drill string is rotating inside the surface casing, typically recorded on daily drilling reports.

Statewide Rule 13

New in Rule 13

§13(a)(4)(C)

- Operators must isolate (place cement behind casing) all formations permitted for injection within ¼-mile of a proposed well:
  - Across and above disposal well formations
  - Above injection well formations

§13(a)(4)(D-E)

- Operators must pump sufficient cement to isolate and control annular gas migration and isolate potential flow zones and zones with corrosive formation fluids API Standard 65-Part 2

Statewide Rule 13

New in Rule 13

§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.state.tx.us/environmental/rule13/index.php

List to be revised as additional information becomes available

Statewide Rule 13

New in Rule 13
Formation Tables

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	

Statewide Rule 13

New in Rule 13
Formation Tables

KLEBERG COUNTY			
Formation	**Shallow Top**	**Deep Top**	**Remarks**
Miocene / Lagarto / Oakville	1,400	6,200	injection/disposal; H2S
Catahoula / Anahuac	2,800	4,670	injection/disposal; H2S
Catahoula / Frio	2,800	14,050	injection/disposal; H2S
Vicksburg	6,800	8,700	
Jackson	11,250	11,250	

Statewide Rule 13

New in Rule 13 Formation Tables

- Formation lists subject to change based on new data.
- Listed formation tops for **reference only**. Formations must be isolated based on where the formations are encountered in each individual well.
- Compliance with Rule 13 will be based on formation tops listed on completion report. Formations that require isolation but are not listed on completion report will require re-filing or explanation (e.g. formation not present in well or not productive at well location).

Statewide Rule 13

New in Rule 13 §13(a)(4)(D)

- Casing must be cemented* above any productive zone, potential flow zone, zones with corrosive formation fluids, or permitted injection/disposal zone (w/in ¼ mile).
  - 600’ (md) calculated top (30% washout factor in coastal counties, 20% in all other counties); **or**
  - 250’ (md) as determined by temperature survey; **or**
  - 100’ (md) as determined by bond log; **or**
  - At least 200’ (md) calculated into the previous casing shoe

*Where necessary, cement slurries shall be designed to control annular gas migration.

Statewide Rule 13

New in Rule 13
Changes to Drilling Permits

- RRC query will flag with a permit restriction any new drill permit application filed on or after 01-01-2014, and 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.

Statewide Rule 13

New in Rule 13
§13(a)(6)(A-B)

Consolidates and updates requirements for well control and BOPs, and distinguishes between the use of well control equipment on inland, bay and offshore wells.

- Well control equipment must be set after conductor offshore and surface on land
- Well control equipment must be rated to greatest anticipated pressure component
- Diverter required on conductor if shallow gas anticipated.
- Offshore requires double ram BOP's, and annular BOP and shear rams
- Must comply with SWR 36 in H_2S areas.

Statewide Rule 13

New in Rule 13

§13(a)(6)(B)

The following components shall be installed:

- Drill pipe safety valve;
- Choke line of sufficient working pressure
- Upper Kelly cock & lower Kelly valve
  if utilizing Kelly rig;

All control equipment must be consistent with API Standard 53 and certified in accordance with that standard. Certification required every 5 years and made available to RRC upon request.

Statewide Rule 13

New in Rule 13

§13(a)(6)(B)

Testing requirements for well control equipment:

- Tested to max anticipated surface pressure, but not less than 1,500 psi, before drilling out plug on surface casing
- Upon installation
- Upon repair of any component
- Every 21 days if not otherwise required
- Records to be maintained in log signed by person responsible for the test

Secondary closure location required

- More than one physical location

Statewide Rule 13

New in Rule 13

§13(a)(7)(B)

For wells undergoing hydraulic fracturing treatments, operators are required to pressure test well casings to the maximum pressure expected during the fracture treatment for 5 minutes and to notify RRC of a failed test.

- Casing and/or tubing subject to frac pressure must have an internal yield of at least 1.1 times the anticipated max pressure
- Casing and/or tubing subject to treating pressure must be pressure tested to max anticipated treating pressure
- Casing strings with pressure actuated sliding sleeves must be tested at 80% of actuation pressure

Statewide Rule 13

New in Rule 13

§13(a)(7)(C)

During hydraulic fracturing, operators must monitor the annular space between the well's casing for pressure changes and suspend hydraulic fracturing operations if the annuli monitoring indicates a potential down hole casing leak.

Statewide Rule 13

New in Rule 13 §13(a)(7)(D)

Additional testing and monitoring requirements for "minimum separation wells" where the vertical distance between the BUQW and the top of a formation to undergo hydraulic fracturing treatment is less than 1,000 vertical feet.

- Production casing cemented 200' into next shallowest casing string
- Test to max pressure to be applied during treatment
- No disturbance of production casing for at least 8 hours and not prior to achieving 500 psi compressive strength

Statewide Rule 13

New in Rule 13

§13(a)(7)(D) (cont'd)

- Run cement evaluation tool assessing radial cement integrity
- Can request exemption from District Director providing operator has:
  - Cemented and tested 5 wells in the same field
  - Obtain cement evaluation tool logs verifying cement history
  - Shown that the well will be constructed in the same manner as the other 5 wells

Statewide Rule 13

§13(b)(4)(A-B)

All flowing oil wells must be equipped with tubing

NEW - Exceptions up to 180 days may be administratively granted by the director:

- Fee is required
- Subsequent extensions require a RRC order

Statewide Rule 13

Form W-2 Changes

Type or Print Only
483-047

RAILROAD COMMISSION OF TEXAS
Oil and Gas Division

Form W-2
Rev. _____/2013

API No.: **42-**

7. RRC District No.

Oil Well Potential Test, Completion or Recompletion Report, and Log

8. RRC Lease No.

1. FIELD NAME (as per RRC Records or Wildcat)

2. LEASE NAME

9. Well No.

3. OPERATOR'S NAME (Exactly as shown on Form P-5, Organization Report)

RRC Operator No.

10. County of well site

4. ADDRESS

11. Purpose of filing
A. Producers
Initial Potential ☐
Retest ☐
Reclass ☐
Well Record Only ☐
(Explain in Remarks)

5a. Location (Section, Block, and Survey)

5b. Distance and direction to nearest town in this county

6. Location of well, relative to the nearest lease boundaries on which this well is located
Feet from ____ Line and ____ Feet from ____ Line of the ____ Lease

12. Completion or recompletion date

13. If workover or reclass, give former field (with reservoir) & Gas ID or Oil Lease No.

14. Type of electric or other log run

FIELD & RESERVOIR	GAS ID or OIL LEASE #	Injection/ Disposal	Oil-O Gas-G	Other	Well #

B. Injection/Disposal/ Storage/Brine Mining
Initial Completion ☐
Reclass ☐
Well Record Only ☐
(Explain in Remarks)

15. Any condensate on hand at time of workover or recompletion?
☐ **YES** ☐ **NO**

Well Latitude/Longitude:
Latitude/Longitude Type:

POTENTIAL TEST DATA IMPORTANT: Test should be for 24 hours unless otherwise specified in field rules.

16. Date of test	17. No. of hours tested	18. Production method (Flowing, Gas Lift, Jetting, Pumping - Size & Type of Pu	19. Choke size

20. Production during Test Period	Oil - BBLS	Gas-MCF	Water - BBLS	Gas - Oil Ratio	Flowing Tubing Pressure PSI
21. Calculated 24-Hour Rate	Oil - BBLS	Gas-MCF	Water - BBLS	Oil Gravity - API - 60°	Casing Pressure PSI

22. Was swab used during this test? ☐ **YES** ☐ **NO**

23. Oil produced prior to test (New & Reworked Wells):

24. Shut-in Bottomhole Pressure (Optional)

Statewide Rule 13

Form W-2 Changes

DATA ON WELL COMPLETION

25. Type of Completion ☐ New Well ☐ Re-entry ☐ Side Track ☐ Other ☐ Deepening ☐ Plug Back ☐ Recompletion		26. Permit to Drill Plug Back or Deepen — DATE — PERMIT NO.
27. Notice of Intention to Drill This Well Was File in the Name of		Rule 37 Exception — DATE — CASE NO.
28. Number of producing wells on this lease in this field (reservoir) including this well	29. Total number of acres in this lease	Water Injection Permit — DATE — PERMIT NO. F -
		Salt Water Disposal Permit — DATE — PERMIT NO.
30. Date Plug Back, Deepening Workover or Drilling Operations — Commenced — Completed	31. Distance to nearest well, Same Lease & Reservoir	Other — DATE — PERMIT NO.
32. Elevation (DF, RKB, RT, GR, etc.)		**33. Was directional survey made other than inclination (Form W-12)?** ☐ **YES** ☐ **NO**

34. Top of Play TVD	MD	35. Total Depth TVD	MD	36. P.B. Depth TVD	MD	37. Surface Casing Determined by:	Field Rules ☐	Recommendation of G.A.U ☐	SWR 13 Exception ☐	Date Of	Depth

38. Rotation Time Within Surface Casing (Hours)	**39. Is well multiple completi** ☐ **YES** ☐ **NO** **41. Is Cementing Affidavit (W-15) attached?** ☐ **YES** ☐ **NO**	40. If multiple completion, list all reservoir names (completions in this well) and Oil Leas or Gas ID No.					
		FIELD & RESERVOIR	GAS ID or OIL LEASE #	Injection/ Disposal	Oil-O Gas-G	Other	Well #

Statewide Rule 13

Form W-2 Changes

API No.: **42-**

42. CASING RECORD

Row	Type of Casing (conductor, surface, intermediate, production, or other)	Hole Size Inches & Fractions	Casing Size Inches & Fractions	Setting Depth(ft.)	Multi-Stage Tool Depth(ft.)	Multi-Stage Shoe Depth(ft.)	Cement Type	Cement Amount (Sacks)	Slurry Volume cu. ft.	Top of Cement	Top of Cement Determined by
1											
2											
3											
4											

43. LINER RECORD

Row	Liner Size Inches & Fractions	Hole Size Inches & Fractions	Liner Top (ft.)	Liner Bottom (ft.)	Cement Type	Cement Amount (sacks)	Slurry Volume cu. ft.	Top of Cement	Top of Cement Determined By
1									
2									

44. TUBING RECORD

Does this well currenlty have tubing set? ☐ YES ☐ NO

If NO, Explain in Remarks.

Size	Depth Set	Packer Set

Does this well currently have a completion interval? ☐ YES ☐ NO

45. PRODUCING/INJECTION/DISPOSAL INTERVAL

Indicate depth of perforation or open hole (MD)

NOTE: From and To are for Measured Depth for Horizontals.

L1:	From	To
L2:	From	To
L3:	From	To
L4:	From	To
L5:	From	To

ACID, SHOT, FRACTURE, CEMENT SQUEEZE, CAST IRON BRIDGE PLUGS, ETC.

46. Was hydraulic fracturing treatment performed?	**47. Has the Hydraulic Fracturing Fluid Disclosure been reported to FracFocus Disclosure Registry (SWR 29)?**	48. Production casing test pressure pressure (PSIG) prior to hydraulic fracturing treatment	**49. Is well equipped with an actuation valve?** If yes, provide actuation pressure (PSIG)	50. Actual maximum pressure (PSIG) during hydraulic fracturing
☐ YES ☐ NO	☐ YES ☐ NO		☐ YES ☐ NO	

Depth Interval (ft.)		Amount and Kind of Material Used	Cast Iron Bridge Plugs
From	To		
From	To		
From	To		

Statewide Rule 13

Form W-2 Changes

51. FORMATION RECORD	(List Depths of Principal Geological Markers, Formation Tops to Include Permitted Disposal/Injection Formations, Productive Zones, Potential Flow Zones, and Corrosive Formation Fluid Zones within 1/4 Mile Radius of Wellbore.)	
Formations	Depth TVD	MD

52. Are the producing intervals of this well associated with a non-exempt hydrogen sulfide field (SWR 36)? ☐ YES ☐ NO	53. Is the completion being down-hole commingled (SWR 10)? ☐ YES ☐ NO

54. Shallowest Known Disposal/Injection Zone, Productive Zone, Potential Flow Zone, or Zone With Corrosive Formation Fluids		
Formation:	Depth: TVD	MD

REMARKS:

WELL TESTER'S CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I conducted or supervised this test and that data and facts shown in Sections I and II above are true, correct, and complete, to the best of my knowledge. Bottomhole temperature and the diameter and length of flow string were furnished by the operator of the well.

Is the operator on this packet also the tester? ☐ **YES** ☐ **NO** (If No, Please enter the Tester Information below:)

Signature: Well Tester _____ Printed Name _____ Name of Company _____

OPERATOR'S CERTIFICATION: I declare under penalties prescribed in Sec. 91.143, Texas Natural Resources Code, that I am authorized to make this report, that I prepared or supervised and directed this report, and that data and facts stated therein are true, correct, and complete, to the best of my knowledge.

Signature: Operator's representative _____ Title _____ Tel: _____ Area Code Number

Printed Name _____ E-mail (Optional) _____

Interacting with RRC

Website: www.rrc.state.tx.us

- Extensive information
  - licenses & permits, safety information, education & training
  - frequently asked questions
- Searchable databases
  - oil and gas well records, drilling permits, production reports
- Land and homeowner information
  - shale play information (*Barnett Shale, Eagle Ford Shale, Haynesville/Bossier Shale, Permian Basin Shale, etc.)*
  - pipeline eminent domain and condemnation
  - royalties

The Railroad Commission of Texas - Windows Internet Explorer

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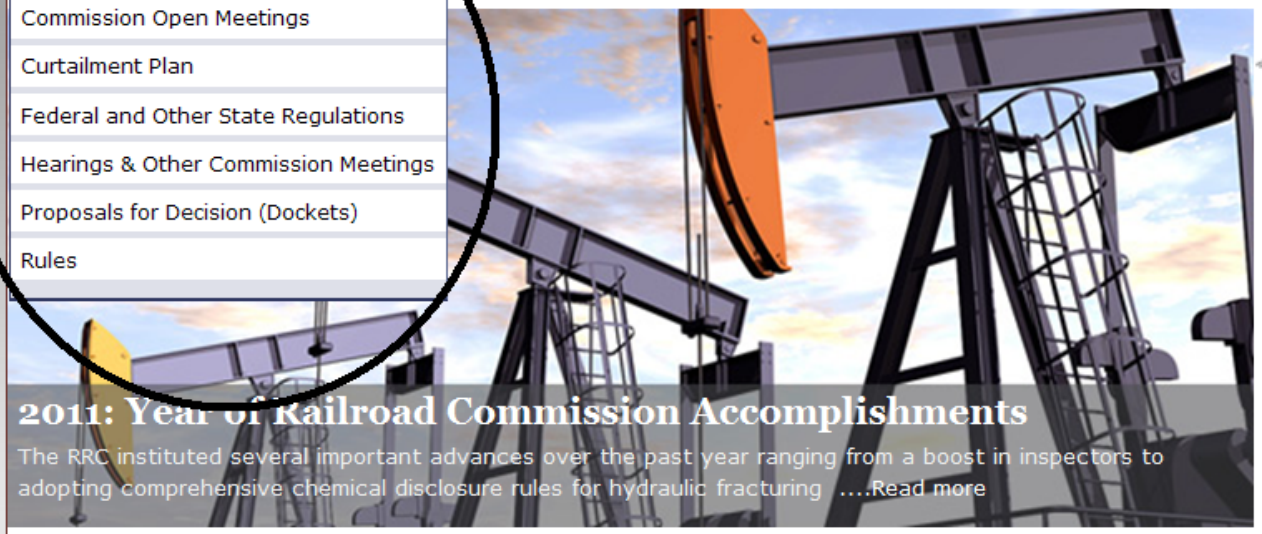
- Commission Open Meetings
- Curtailment Plan
- Federal and Other State Regulations
- Hearings & Other Commission Meetings
- Proposals for Decision (Dockets)
- Rules



2011: Year of Railroad Commission Accomplishments

The RRC instituted several important advances over the past year ranging from a boost in inspectors to adopting comprehensive chemical disclosure rules for hydraulic fracturing ....Read more

2011: Year of Railroad Commission Accomplishments

RRC Production Statistics & Allowables for July 2012

Devine FFA Rehearses Winning Presentation for Comm. Porter

RRC Chairman Smitherman Testifies on EPA's Regulations

Recent News

July 17, 2012

Railroad Commission Chairman Barry Smitherman Champions New Revolving Door Policy

Lead Texas Energy Official says Policy will maintain public trust. Read more....

July 3, 2012

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- Commissioner David Porter
- Commissioner Buddy Garcia
- List of Commissioners, past through present

http://www.rrc.state.tx.us/meetings/index.php

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RAILROAD COMMISSION of TEXAS

Railroad Commission of Texas Rules

NEW! **RRC Rules Email Service**- You can now join the RRC Rules Email Service to receive email notifications of the RRC's rulemaking actions. The list is free; just provide an email address. For questions or comments, please contact us.

Current Rules (Rules in effect at this time; the list will be updated one week after the effective date of any adoption.)

Emergency Rules (New rules or amendments adopted on an emergency basis; an emergency rule may or may not be accompanied by a regular rulemaking proposal. Any regular rulemaking proposal will be posted on the Proposed Rules table.)

Proposed Rules (Proposals to change, add, or delete rules; these proposals have been published in the *Texas Register* but have not been adopted.)

Draft Proposed Rules for Informal Comment (Working drafts of proposals to change, add, or delete rules; the Commission is seeking comment prior to finalizing the proposal and publishing it in the *Texas Register*.)

Online Comment Form (An option to submit comments for specific proposed rules.)

Related Links

- Commission Meetings
- Federal and Other State Regulations
- Hearings & Other Commission Meetings
- Oil & Gas Field Information Query (Field Rules)
- Proposals for Decision (Dockets)
- Rules

NEW! **RRC Rules Email Service**- You can now join the RRC Rules Email Service to receive email notifications of the RRC's rulemaking actions. The list is free; just provide an email address. For questions or comments, please contact us.

Please send questions regarding the Railroad Commission's rules to the Office of General Counsel at gcwebmaster@rrc.state.tx.us.

Below is the list of Railroad Commission chapters currently in effect. Click on the chapter title to go to the list of subchapter and/or rules in that chapter:

Chapter 1: Practice and Procedure

Chapter 2: Informal Complaint Procedure (new chapter effective March 15, 2007)

Chapter 3: Oil and Gas Division

Chapter 4: Environmental Protection

Chapter 5: Carbon Dioxide (CO2) (new chapter effective December 20, 2010)

Chapter 7: Gas Services Division

- Disposition Table
  Showing where the provisions of the former rules of 16 TAC Chapter 7, which became effective on July 29, 2002, are now covered in the chapter.
- Derivation Table
  Showing where the provisions of 16 TAC Chapter 7, which became effective on July 29, 2002, were formerly covered in the chapter.

Chapter 8: Pipeline Safety Regulations

- Derivation Table (pdf format)
  Showing where the Pipeline Safety provisions in 16 TAC Chapter 8, which became effective on November 24, 2004, were formerly found in 16 TAC Chapter 7.

Chapter 9: LP-Gas Safety Rules

Texas Administrative Code

TITLE 16 ECONOMIC REGULATION
PART 1 RAILROAD COMMISSION OF TEXAS
CHAPTER 3 OIL AND GAS DIVISION

Rules

§3.1 Organization Report; Retention of Records; Notice Requirements
§3.2 Commission Access to Properties
§3.3 Identification of Properties, Wells, and Tanks
§3.4 Oil and Geothermal Lease Numbers and Gas Well ID Numbers Required on All Forms
§3.5 Application To Drill, Deepen, Reenter, or Plug Back
§3.6 Application for Multiple Completion
§3.7 Strata To Be Sealed Off
§3.8 Water Protection
§3.9 Disposal Wells
§3.10 Restriction of Production of Oil and Gas from Different Strata
§3.11 Inclination and Directional Surveys Required
§3.12 Directional Survey Company Report
§3.13 Casing, Cementing, Drilling, and Completion Requirements
§3.14 Plugging
§3.15 Surface Equipment Removal Requirements and Inactive Wells
§3.16 Log and Completion or Plugging Report

RAILROAD COMMISSION of TEXAS

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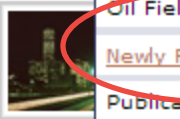
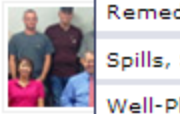
- Abandoned Mine & Land Reclamation Program
- Oil Field Cleanup Fund
- Newly Revised Rule 13
- Publications
- Remediation/ Environmental Support
- Spills, Site Assessment and Cleanup
- Well-Plugging

RRC Production Statistics and Allowables for July 2013

The Texas average rig count as of June 14 was 837, representing about 49 percent of all active land rigs in the United States. Read more...





RRC Chairman Smitherman at a Lignite Mine in East Texas

New RRC Commissioner Christi Craddick sworn in on 12/17/12

Recent News

July 26, 2013

Railroad Commission Chairman Smitherman's Statement on Hydraulic Fracturing Pioneer George Mitchell's Passing Today

Railroad Commission Chairman Barry Smitherman today issued the following statement on today's passing of George Mitchell, the energy pioneer who developed the hydraulic fracturing and horizontal drilling process in wide use today throughout Texas and the nation. Read more...

July 25, 2013

Commissioner Christi Craddick Testifies Today in Washington, D.C.: "Texas Is Far Better Equipped than the EPA at Regulating Texas Energy Production"

Railroad Commissioner Christi Craddick, in testimony today before the U.S. House Committee on Natural Resources' subcommittee on Energy and Mineral Resources, said that efforts to impose cumbersome federal regulations on hydraulic fracturing in Texas by the U.S. Environmental Protection Agency would be detrimental to Texas energy production and job creation. Read more

Commissioners

- Chairman Barry T. Smitherman
- Commissioner David Porter
- Commissioner Christi Craddick
- List of Commissioners, past through present

Land & Home Owner Information

- Barnett Shale Information
- Haynesville/Bossier Shale Information
- Eagle Ford Shale Information
- Permian Basin Information
- Granite Wash Information
- Modern Shale Gas Development in the United States: A Primer

Newly Revised Rule 13

Updated: 07/29/13

Information regarding the new revisions to Rule 13, "Casing, Cementing, Drilling, Well Control, and Completion Requirements", which will become effective January 1, 2014.

For more information:

- Summary of Amendments and Revisions to Rule 13
- Rule 13 (Full text)

The weblinks below connect to geologic formation information provided as a guideline for assistance with compliance of casing cement depth during well completions. This data is categorized first by Commission District, then on a spreadsheet by county within that District. Please review the "General Information" tab for each District for additional information.

All Rule 13 Formations are listed in Excel Format

District 1	District 2	District 3	District 4	District 5	District 6 & 6E
District 7B	District 7C	District 8	District 8A	District 9	District 10

All District Complete listing - compressed zip file

Summary

- Statewide Rule 13 - protect UQW
- Construct wells to prevent Sustained Casinghead Pressure (SCP) and protect 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 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.
- **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.)

- **Q** Does an operator need to obtain an SWR 13 exception from the District Office to set surface casing below 3500 feet?
  - **A** Perhaps; the operator must consult with the District Office before setting surface casing deeper than 3,500'. The District Director must approve the method for protection of UQW. Setting surface at UQW depth would require approval but not an exception. Setting a short surface casing and then circulating intermediate casing to protect UQW would require an exception.

Common Questions

- **Q** If a disposal/injection permit is issued for a location within ¼ mile of a proposed new well location, is that new permitted disposal/injection zone required to be isolated in the new well?
  - **A** Yes; note that when SWR 9/46 are officially amended, an injection/disposal permit will not be issued until a drilling permit has been approved for the proposed well location. These wells will be identifiable on the RRC Public GIS.

- **Q** How does an operator determine if a disposal/injection well is within ¼ 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 disposal/injection interval with cement in new well.

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 from at or above the BUQW and single-string wells deeper than 1,000'.
- **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 protection depths may be granted as part of SWR 13 Surface Casing exception request or may be added to field rules through the hearing process.

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Any questions?