

# Secretary of Energy Advisory Board

FracFocus 2.0 Task Force Meeting  
January 6, 2014

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# FracFocus Statistics 1/2/2014

Disclosures reported = 62,887

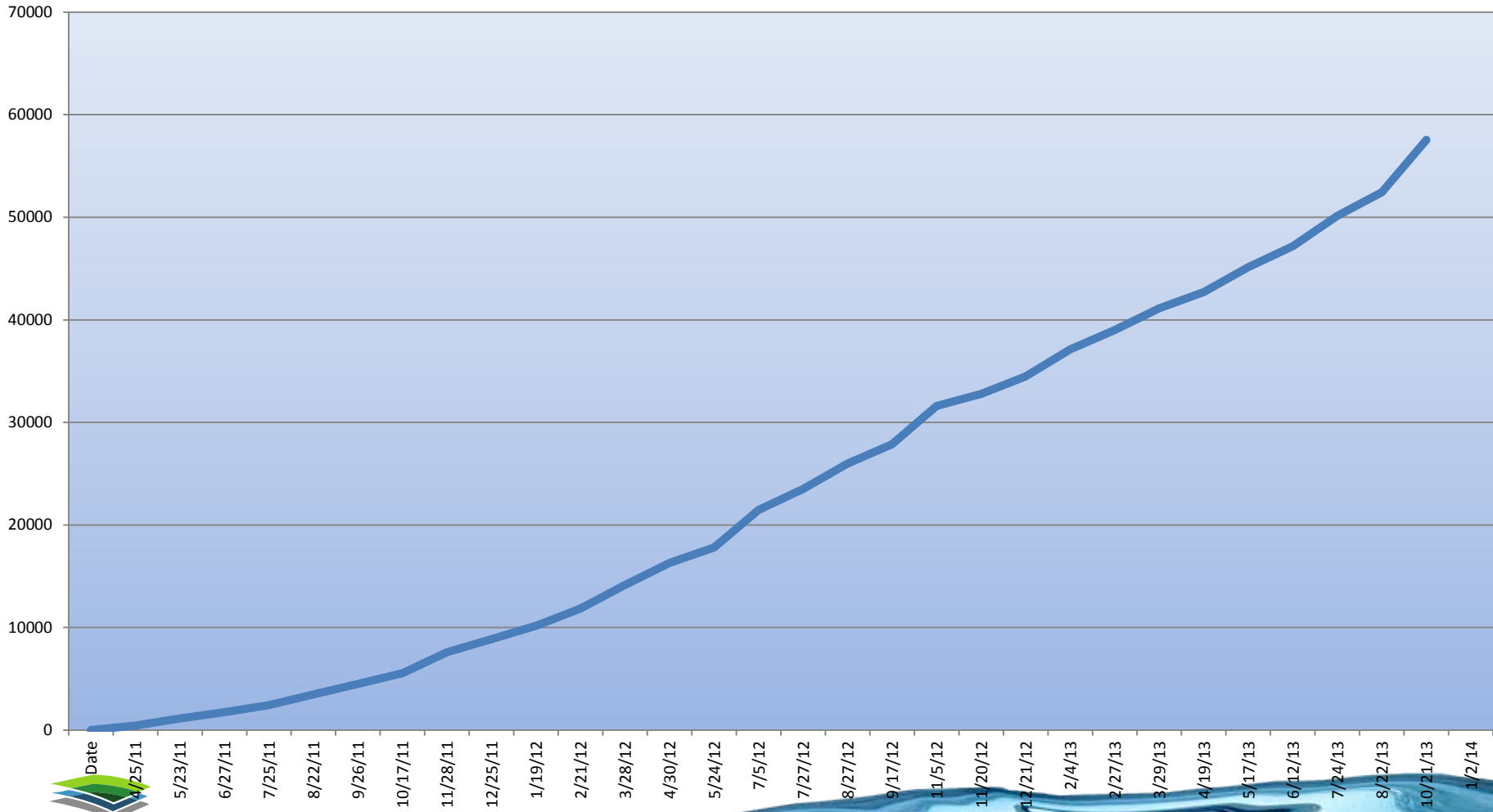
Participating companies = 745

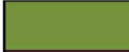
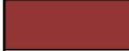


Reporting companies = 570

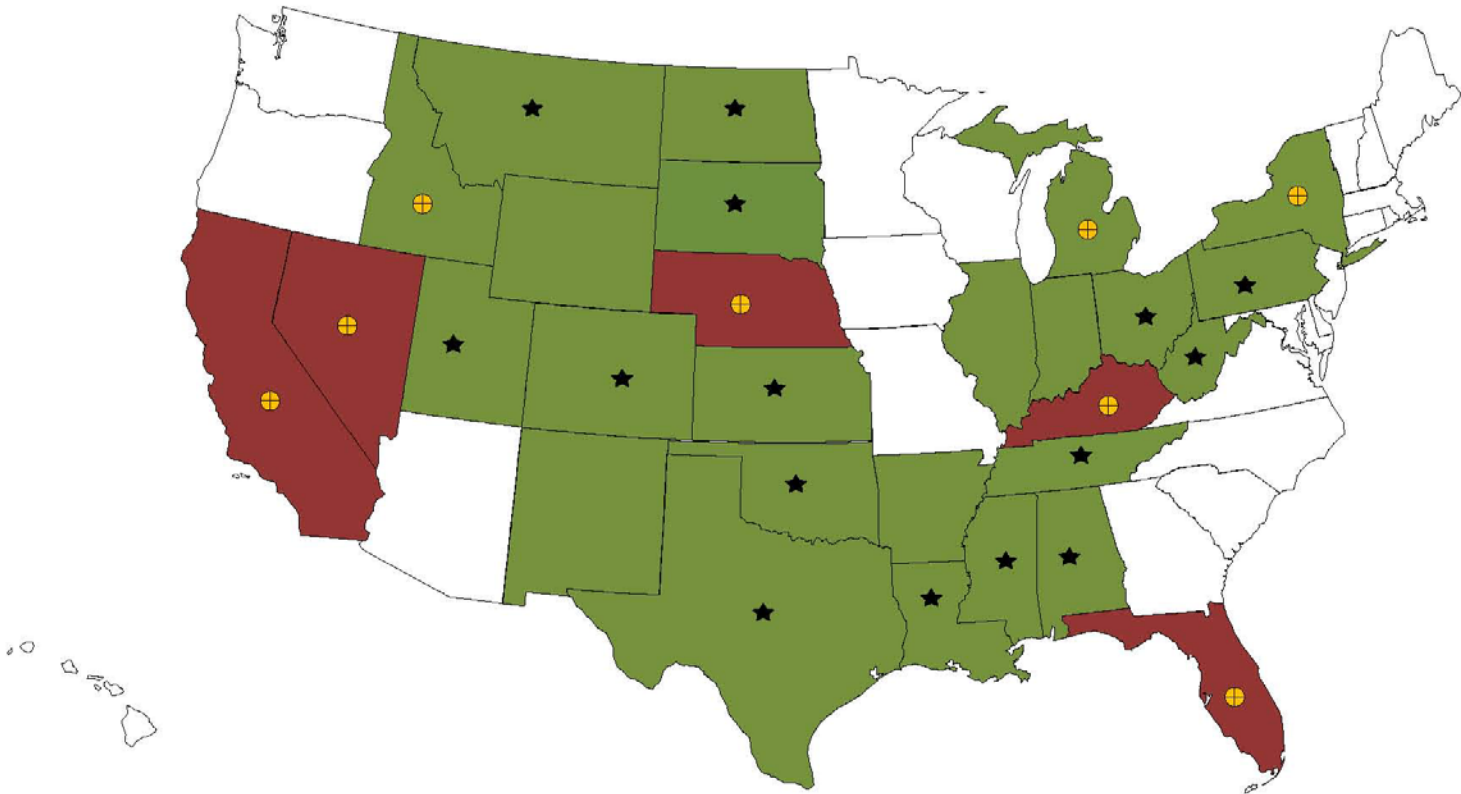
Website visits = 715,443

Unique visitors = 481,832

# Disclosures Reported By Month

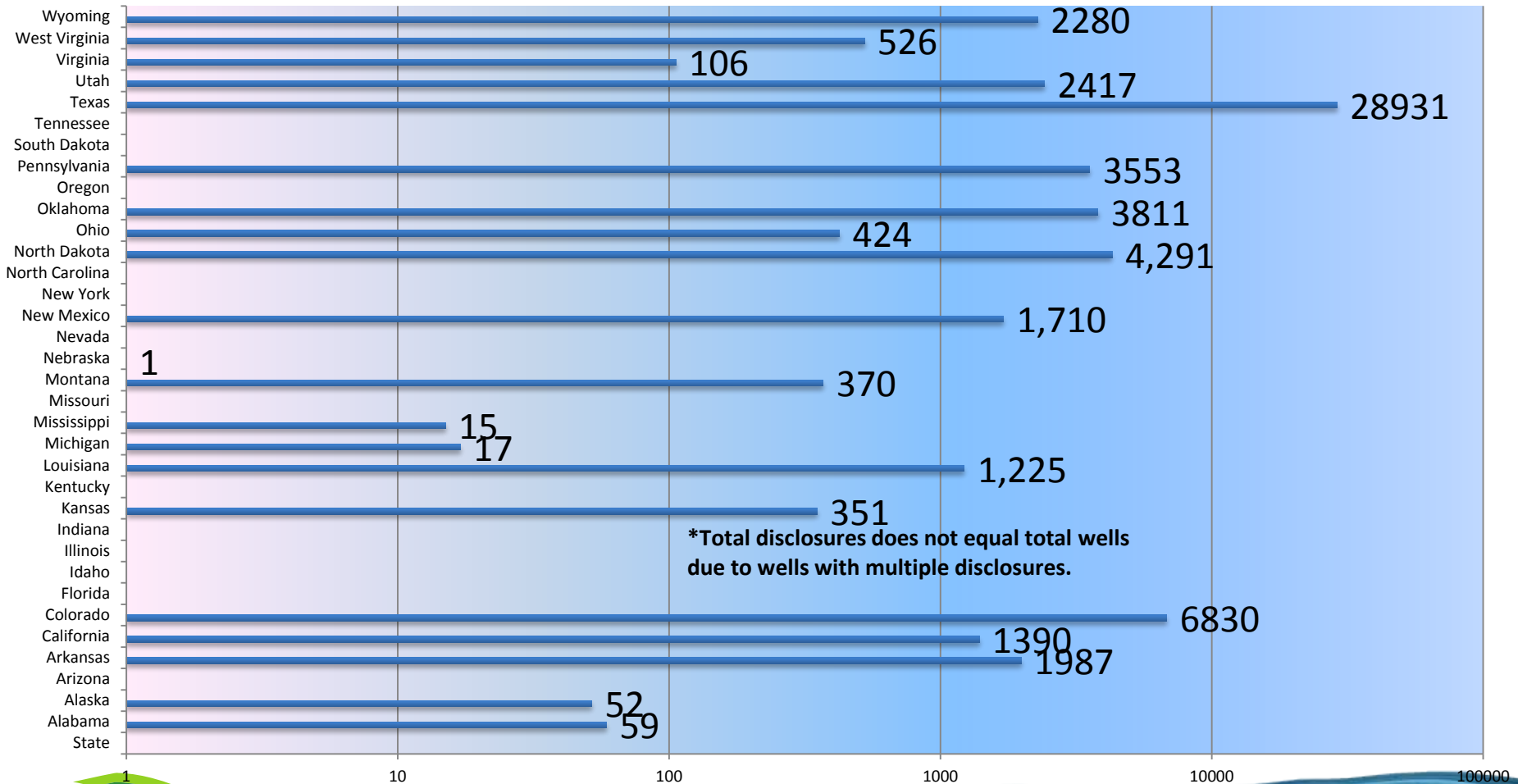


	<b>Chemical Disclosure Required</b>
	<b>Chemical Disclosure Being Proposed</b>
	<b>States Currently Using FracFocus</b>
	<b>States Considering FracFocus</b>



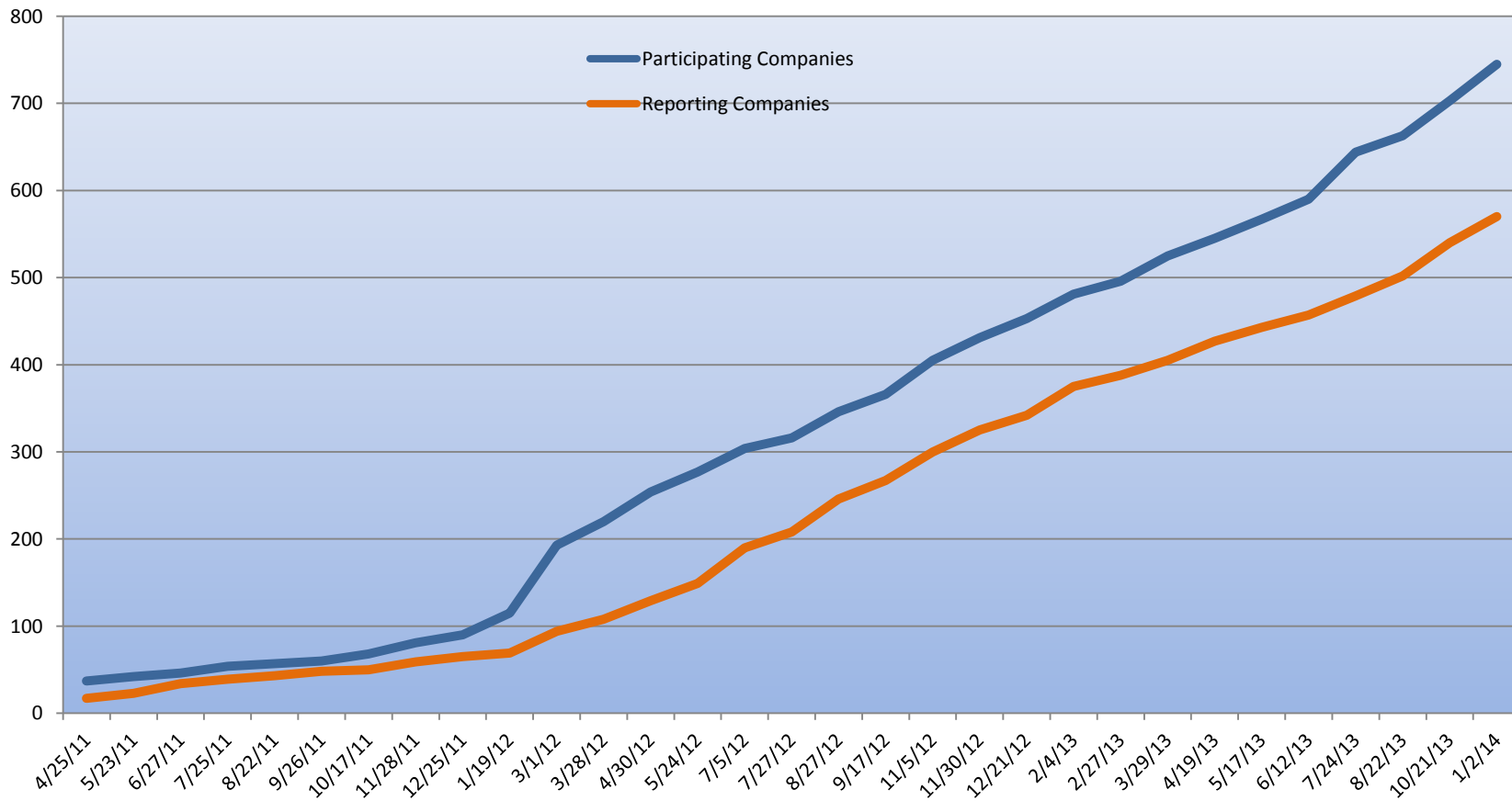
**Hydraulic Fracturing Chemical Disclosure State-by-State 12/2/2013**

# Disclosures Reported By State\*



\*Total disclosures does not equal total wells due to wells with multiple disclosures.

# Company Growth By Month



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## SEAB Recommendations

- Disclosure should include all chemicals, not just those that appear on MSDS.
- Reported on a well-by-well basis and posted on a publicly available website.
- Tools for searching and aggregating data by chemical, by well, by company, and by geography.
- Maintained as a database.



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# FracFocus 2.0 Improvements

- FracFocus 1.0
  - Searchable PDFs (data not stored in a database)
  - Load through Excel
  - Desktop version
- FracFocus 2.0
  - Web-based system
  - Loaded through XML
  - Improved error trapping
  - Increased search capabilities
  - Data transfer data to States
  - Service Co. & Registered agents can load data





## Hydraulic Fracturing Fluid Product Component Information Disclosure

FracFocus 2.0  
 Example disclosure  
 With non-MSDS  
 chemicals shown

Job Start Date	2/7/2012
Job End Date	2/9/2012
State	Oklahoma
County	Tulsa
API Number	15-123-12345
Operator Name	Developer Tester of Oil & Gas
Well Name and Number	WellTester D- 5134
Longitude	-95
Latitude	35
Datum	WGS84
Federal Well	YES
Total Base Water Volume	10,054
Total Base Non Water Volume	2,307,820



### Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Operator	Carrier	Water	1234-56-7	100.00%	93.29644%	
Alpha 1427		Biocide	Diacyl Dimethyl Ammonium Chloride	1234-56-7	10.00%	0.00232%	SmartCare Product
			Ethanol	1234-56-7	5.00%	0.00196%	
	Pioneer Natural Resources Pumping Services LLC		Glutaraldehyde	1234-56-7	100.00%	0.02095%	
	Pioneer Natural Resources Pumping Services LLC		Quaternary Ammonium Compound	1234-56-7	75.00%	0.02341%	SmartCare Product
		Breaker	Ammonium Persulfate	1234-56-7	30.00%	0.00936%	SmartCare Product
		Clay Control	Choline Chloride	1234-56-7	30.00%	0.02956%	
		Friction Reducer	Potassium Disilates	1234-56-7	30.00%	0.02095%	hæc etiam nostris, prius in his ludens. Diam idque laborum usu, cum assan efficitur neleretur. Hæc, mea no lantia neleretur. Al neleretur sinilique vulgata qui, amellitine neleretur iudicabil. Civitatem consociatur in pri, cu duo neleretur laborum. Quam neleretur tempus ex neleretur, accusata quærendam ut sed. Instructor inophræsis neleretur, quot neleretur in pri, eos somni ponderant adollescenti. ex.
		Nonemulsifier	Methanol	1234-56-7	30.00%	0.00463%	SmartCare Product
			Oxalkylated Alkylphenol	1234-56-7	10.00%	0.00154%	SmartCare Product
	Pioneer Natural Resources Pumping Services LLC	Proppant	Crystalline Silica (Quartz)	1234-56-7	100.00%	6.50686%	Lorem ipsum dolor sit amet, no utique suscipienda eprimique. Hæc, ut loqui neleretur. Eos ut agam animal inalegarem. Pomo admodum accusata per and, vim magna euipridis maletatis. eu. Soluta semper in sed, cum neleretur accusant tempus no, all laboris sententia his in. Udu no facilis neleretur.
		Scale Inhibitor	Diallylthylene Glycol	1234-56-7	5.00%	0.00076%	
			Ethylene Glycol	1234-56-7	25.00%	0.00301%	SmartCare Product
			2-Propanoic, Polymer with Sodium Phosphinate, Sodium Salt	1234-56-7		0.0229543954%	
			Aliphatic Hydrocarbon	Trade Secret		0.0001692646%	
			Calcium Chloride	1234-56-7		0.0019703344%	
			Copolymer	Trade Secret			
			Oxalkylated Alcohol	Trade Secret		0.0006966505%	
			Polyacrylate	1234-56-7		0.0010836839%	
			Polyglycol Ester	Trade Secret			
			Polyol Ester	Trade Secret		0.0039406087%	
			Potassium Chloride	1234-56-7		0.0275046812%	
			Sodium Chloride	1234-56-7			
			Vinyl Copolymer	Trade Secret			
			Water	1234-56-7		0.0665236458%	

\*\* Total Water Volume sources may include fresh water, produced water, and/or recycled water  
 \*\* Information is based on the maximum potential for concentration and thus the total may be over 100%



### Ingredient(s) Filter

Narrow Results:

- Acrylamide/ammonium acrylate copolymer -- 2611
- Alcohol Alkoxylate -- TRADE SECRET
- Alcohol Ethoxylate Surfactants -- Trade Secret
- Alcohols, C12-14-sencondary, Ethoxylated -- 841
- Aliphatic alcohol glycol ether -- Proprietary
- Aliphatic polyol -- Proprietary
- Alkyl pyridinium chloride -- 68909-18-2
- Ammonium Persulfate -- 7727-54-0
- Aromatic alcohol polyglycol ether -- Proprietary
- Aromatic aldehyde -- Proprietary
- Bishexamethylenetriamine penta methylene phos
- Bishexamethylenetriamine penta methylene phos
- Cationic Polyacrylamide co polymer -- Trade Sec
- Cocamide Diethanolamine Salt -- 68603-42-9
- Cured Acrylic Resin -- TRADE SECRET
- Deionized Water -- 7732-18-5
- Diethanolamine -- 111-42-2
- Dimethylformamide -- 68-12-2
- Ethoxylate Alcohol -- Proprietary
- Ethylene Glycol -- 107-21-1
- Ethylene Glycol Monobutyl Ether -- 111-76-2
- Gutaraldehyde -- 111-30-08



Press and hold "ctrl" to select more than one ingredient.

(Filter is limited to selecting a total of 20 chemicals)

Cancel

Apply

Find a Well

SEARCH OPTI

STATE:

Choose a State

API WELL NUMBER:

FIND CAS NUMB

BUILD DATE FILT

INGREDIENT LI

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Search



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# Chemical Abstract Number Search

## Find a Well

STATE: Choose a State  COUNTY: Choose a State First

API WELL NUMBER: \_\_\_\_\_ WELL NAME: \_\_\_\_\_

Not Seeing Map Markers? Please Click The "Reset" Button

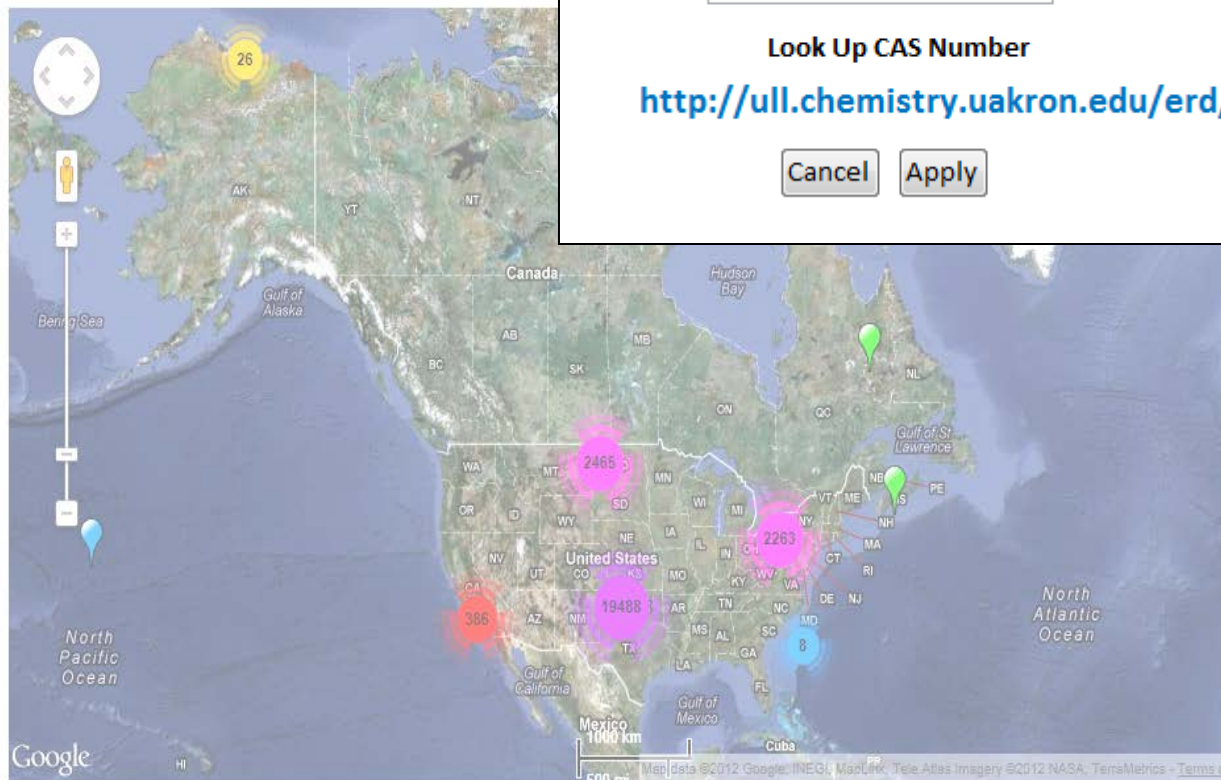
Map Search **Standard Search**

### Enter CAS Number

\_\_\_\_ 123-01-1

Look Up CAS Number

<http://ull.chemistry.uakron.edu/erd>



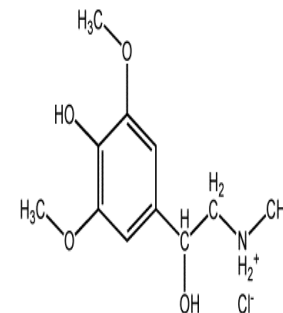
### Search By CAS Number

Enter CAS Number And Return To Search

- Benzyl alcohol, 4-hydroxy-3,5-dimethoxy-alpha-(methylamino)methyl-, hydrochloride
- 4-Hydroxy-3,5-dimethoxy-alpha-(methylamino)methylbenzyl alcohol hydrochloride
- [2-Hydroxy-2-(4-hydroxy-3,5-dimethoxyphenyl)ethyl]-methylazanium chloride

Formula C<sub>11</sub>H<sub>18</sub>ClNO<sub>4</sub>

Structure



### Registry Numbers and Inventories.

CAS	22775-12-8
NIH PubChem CID	31512
EC (EINECS/ELINCS)	245-212-6
DTSC	DOCS00000

## SEARCH OPTIONS: Search to View Wells

STATE:  COUNTY:  WELLS IN COUNTY:  OPERATOR:

API WELL NUMBER:  WELL NAME:

**FIND CAS NUMBER**  [clear](#)

**BUILD DATE FILTER**  [clear](#)

**INGREDIENT LIST**  [clear](#)

**SEARCH** **RESET** (Note: One search option is required when searching. Click "Reset" to clear and prepare for filter.)



# Regulatory Agency Data Delivery

- Online on demand download of data to Regulatory Agency for integration into internal systems
- Tracking of Amendments and Deletions through Unique Record ID's to assure Compliance


## Agency Download Chemical Disclosures

Use the form below to download Chemical Disclosures for your state. Choose the appropriate filters settings and click the "Download Now" button.

### Filter Your Download

Submission Date From :

Submission Date To :

An icon representing an XML file download. It shows a white document with a red zipper, a red ribbon, and a blue arrow pointing downwards. The word "XML" is written in red on a white background at the bottom of the document.

You may download up to 180 days worth of disclosure data at a time.

# RBDMS – FracFocus Link

## RBDMS

- Comprehensive data management system use by states and tribes for all oil, gas, UIC, water and associated environmental data
- RBDMS Hydrofrac Module stores completion reports/data and meets individual state requirements
- Links to Fracfocus to allow states to combine chemical data with other completion reports

## FracFocus

- Online chemical registry for chemicals used in HF operations
- States do not have to maintain individual chemical registry systems

# RBDMS (Risk Based Data Management System)

## Current Applications

- RBDMS Classic and RBDMS .net: Data management system
- Electronic Commerce
  - Epermit
  - Ereport: industry to state
- RBDMS Environmental
- Data Mining
- WellBore Schematic
- Wellfinder App
- RBDMS-FracFocus Link
- National Oil and Gas Gateway
- Field Inspection

# RBDMS Oil and Gas Well Information



## COGIS - WELL Information

Scout Card



[Related](#)



[Insp.](#)



[MIT](#)



[GIS](#)



[Doc](#)




[Wellbore](#)



[Orders](#)

Surface Location Data for API # **05-123-24233**

Status: PR

<a href="#">Well Name/No:</a>	<a href="#">REEMAN #12-5</a>	(click well name for production)	
<a href="#">Operator:</a>	BARRETT CORPORATION* BILL - 10071		
Status Date:	5/8/2012 2:45:56 PM	Federal or State Lease #:	
County:	WELD #123	Location: SWNW 5 6N 65W 6 PM	
Field:	EATON - #19350	Elevation: 4,821 ft.	
Planned Location:	1998 FNL 663 FWL	Lat/Long: 40.51871/-104.69446	
As Drilled Location:	Footages Not Available	Lat/Long: 40.51872/-104.69448	
		Job Date: 4/11/2012	Reported: 5/16/2012
			Days to report: 35

Wellbore Data for Sidetrack #00

Status: PR

3/2/2007

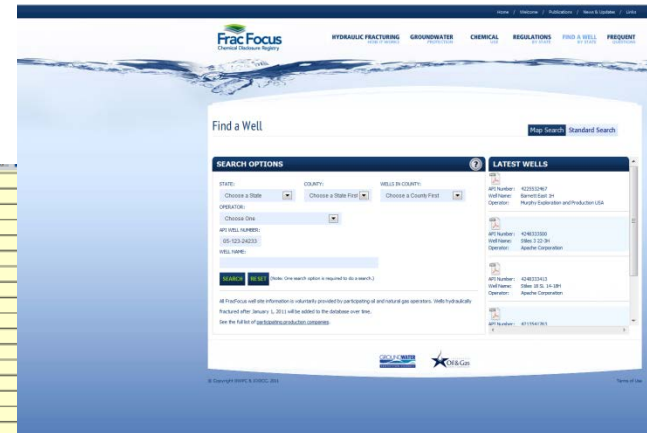
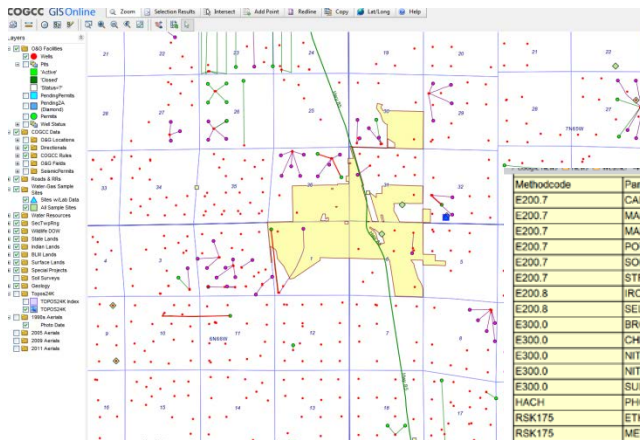
Spud Date:	11/29/2006	Spud Date is:	ACTUAL
<b>Wellbore Permit</b>			
Permit #:	20063600	Expiration Date:	9/4/2007
Prop Depth/Form:	7350	Surface Mineral Owner Same:	Y
Mineral Owner:	FEE	Surface Owner:	FEE
Unit:		Unit Number:	
Formation and Spacing:	Code: NB-CD , Formation: NIOBRARA-CODELL , Order: 407-87 , Unit Acreage: 80, Drill Unit: W2NW		
<b>Wellbore Completed</b>			
Completion Date:	12/7/2006		
Measured TD:	7390	Measured PB depth:	7355
True Vertical TD:		True Vertical PB depth:	





# RBDMS Environmental manages field, analytical data

- Captures field observations for soil, sediment, surface water, ground water, and air matrices.
- Accepts analytical water quality and chemical data reports from industry and third-party laboratories.
- Links to FracFocus



# In development: RBDMS Water Tracker

## WATER LIFE-CYCLE

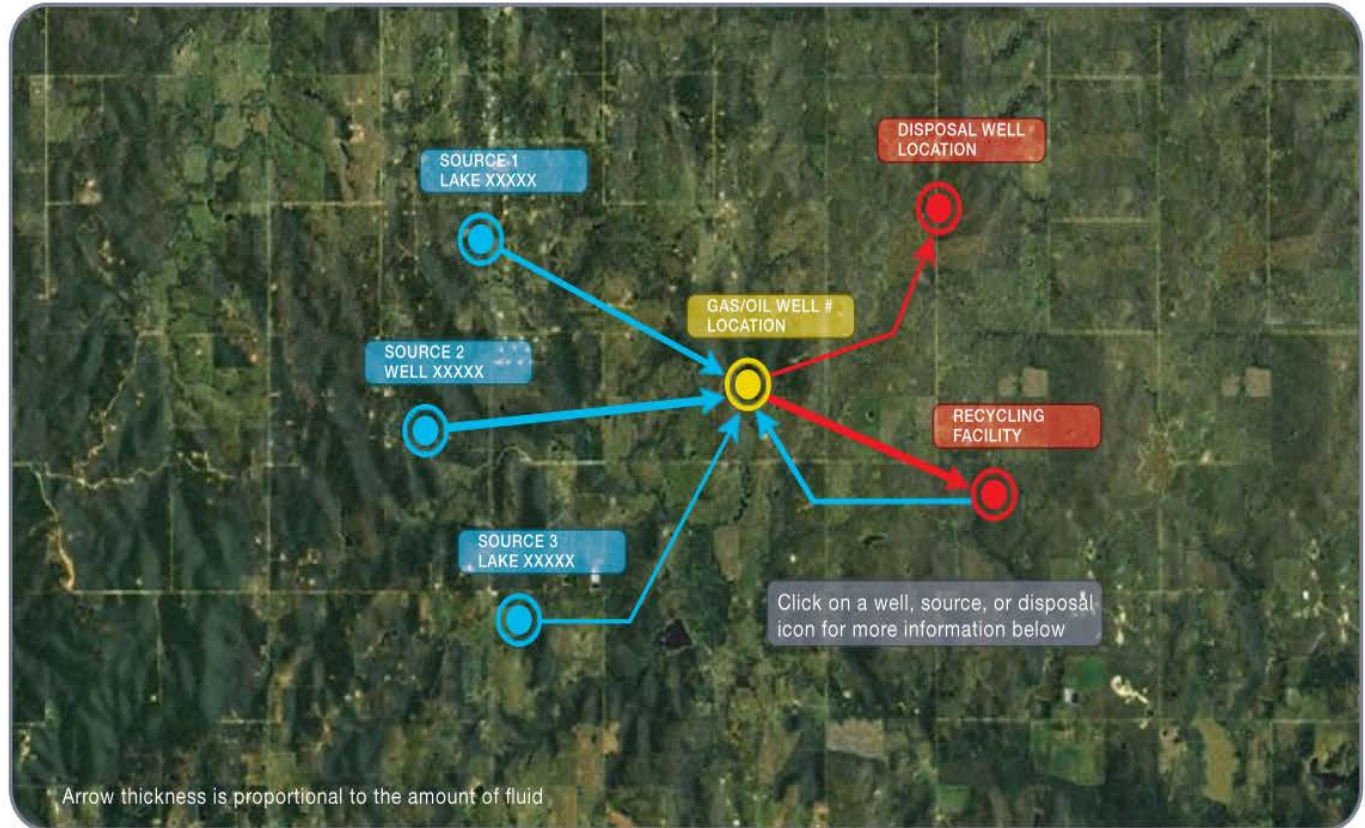
### SEARCH

Category 1

Category 2

Category 3

Category 4

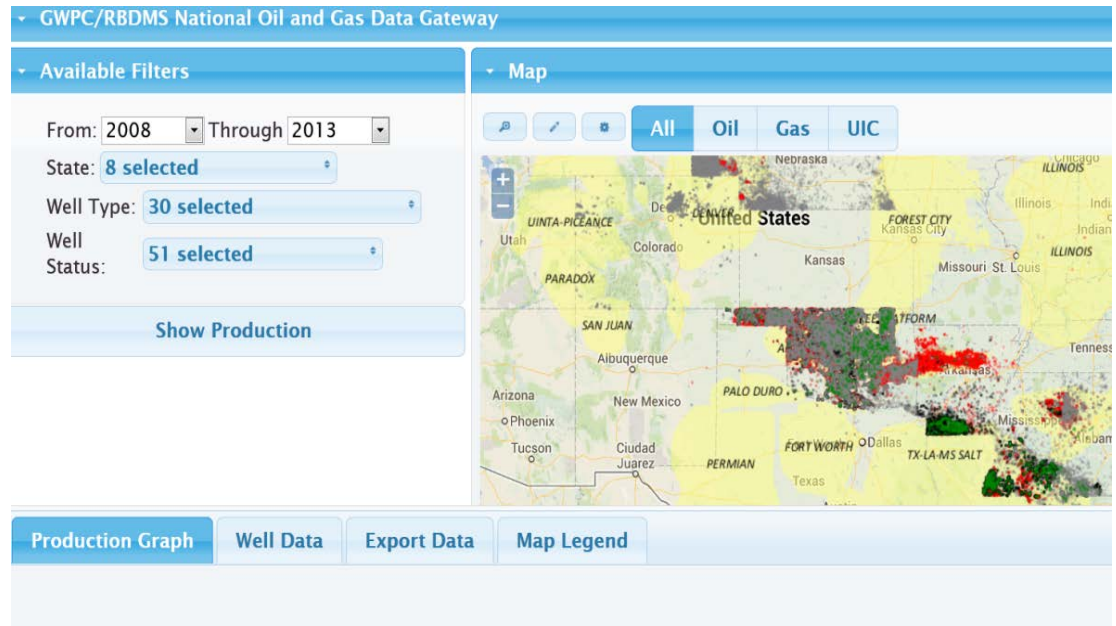




- RBDMS Hydrofrac/Stimulations Module stores: completion reports/data for pre-chemical disclosure
- Bi-directional data flow from state systems to FracFocus
- Electronic permitting and reporting

# National Oil and Gas Gateway

- Partnership with GWPC, States, DOE/EIA
- Linking Oil, Gas, Injection Well, (permitting, completion, production), Water and FracFocus Chemical Disclosure Data
- Combining state data to develop national status and trends



# Making Oil and Gas Data Accessible

