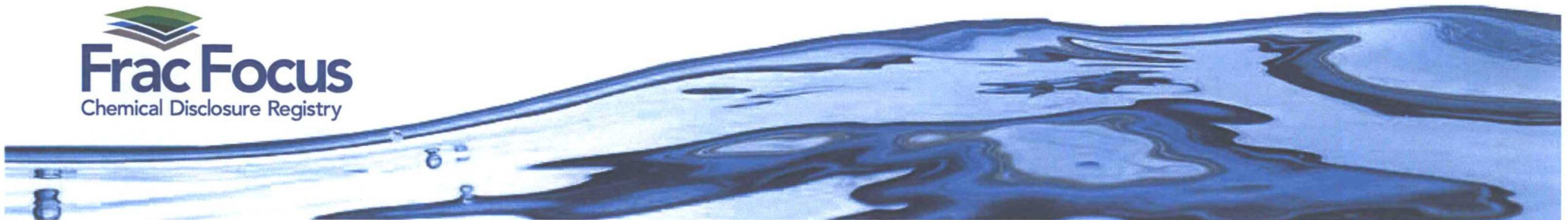


## Three ways to generate FracFocus 2.0 files

---

- Service company creates xml and sends to operator via e-mail
- Service company creates xml and uploads directly to operator queue
- Operator or registered agent creates xml using pre-loaded forms



# FracFocus 2.0 Data Entry Forms

## Preview/Edit FracFocus Submissions

|                           |                      |                      |                          |
|---------------------------|----------------------|----------------------|--------------------------|
| Job Start Date            | Job End Date         | API Number           | Well Name                |
| <input type="text"/>      | <input type="text"/> | <input type="text"/> | <input type="text"/>     |
| Longitude                 | Latitude             | Datum                | Federal Well?            |
| <input type="text"/>      | <input type="text"/> | <input type="text"/> | <input type="checkbox"/> |
| True Vertical Depth (TVD) | Total Water Vol      | Total Non Water Vol  | Total Mass               |
| <input type="text"/>      | <input type="text"/> | <input type="text"/> | <input type="text"/>     |

## MSDS Chemical Ingredients

| Trade Name                                        | Supplier             | Purpose              | Ingredients          | CAS #                | % High Additive      | % HF Job             | Comments             | Ingredient Mass      |
|---------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <input type="text"/>                              | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| <input type="button" value="3rd Party Chemical"/> |                      |                      |                      |                      |                      |                      |                      |                      |

## Non-MSDS Chemical Ingredients

| Trade Name                                        | Supplier             | Purpose              | Ingredients          | CAS #                | % High Additive      | % HF Job             | Comments             | Ingredient Mass      |
|---------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <input type="text"/>                              | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| <input type="button" value="3rd Party Chemical"/> |                      |                      |                      |                      |                      |                      |                      |                      |



# E&P Operator: View Disclosure Details

Click Edit  
Disclosure From  
Pending List:

Visibly review  
entered or  
uploaded Data,  
Map of Well  
Spot,  
Access Edit  
Options



## Prepare Disclosure for FracFocus Submission

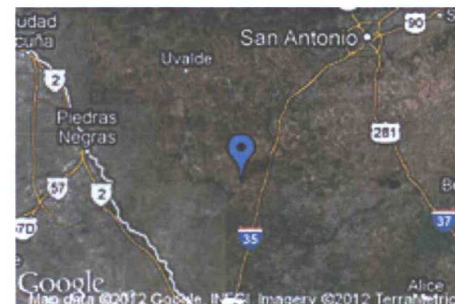
[Back to Dashboard](#)

[Remove Disclosure From FracFocus](#) [Preview Disclosure PDF](#) [Submit To FracFocus](#)

### Hydraulic Fracturing Data

[Edit](#)

|                           |                 |                     |                          |
|---------------------------|-----------------|---------------------|--------------------------|
| Job Start Date            | Job End Date    | API Number          | Well Name                |
| 10/12/2011                | 10/16/2011      | 19-999-99999-00-00  | Edit Test                |
| Longitude                 | Latitude        | Datum               | Federal Well?            |
| -99.38872                 | 28.48704        | WG584               | <input type="checkbox"/> |
| True Vertical Depth (TVD) | Total Water Vol | Total Non Water Vol | Total Mass               |
| 5429                      | 2858265         |                     | 1951357                  |



### MSDS Chemical Ingredients

[New Additive](#)

|                      | Trade Name  | Supplier    | Purpose             | Ingredients | CAS #      | % High Additive | % HF Job | Comments | Ingredient Mass |
|----------------------|-------------|-------------|---------------------|-------------|------------|-----------------|----------|----------|-----------------|
| <a href="#">Edit</a> | WIC-641L    | Weatherford | Iron Control        | Ciric Acid  | 77-92-9    | 50%             | 0.0006%  |          | 100             |
| <a href="#">Edit</a> | HCL         | Weatherford | Acid                | Water       | 7732-18-5  | 85%             | 1.06%    |          | 1000            |
|                      |             |             |                     | HCL         | 7647-01-0  | 15%             | 0.3%     |          | 150             |
| <a href="#">Edit</a> | Sand        |             | Proppant            | Silica      | 14808-60-7 | 100%            | 5.222%   |          | 825000          |
| <a href="#">Edit</a> | Fresh Water |             | Carrier/Base Fluid  | Water       | 7732-18-5  | 100%            | 92.2%    |          | 2000000         |
| <a href="#">Edit</a> |             |             | Other Chemicals     |             |            |                 |          |          |                 |
| <a href="#">Edit</a> | WIC-251LC   | Weatherford | Corrosion Inhibitor | Dimethyl    | 66-12-2    | 30%             | 85.06%   |          | 15              |

## Example of Generated Summary PDF by FracFocus

### Hydraulic Fracturing Fluid Product Component Information Disclosure

|                                |                    |
|--------------------------------|--------------------|
| Job Start Date:                | 10/25/2016         |
| Job End Date:                  | 10/28/2016         |
| State:                         | New Mexico         |
| County:                        | Lea                |
| API Number:                    | 30-025-43313-00-00 |
| Operator Name:                 | Apache Corporation |
| Well Name and Number:          | Fire Eagle 2H      |
| Latitude:                      | 33.46166220        |
| Longitude:                     | -103.21917860      |
| Datum:                         | NAD27              |
| Federal Well:                  | NO                 |
| Indian Well:                   | NO                 |
| True Vertical Depth:           | 4,941              |
| Total Base Water Volume (gal): | 1,746,990          |
| Total Base Non Water Volume:   | 0                  |



#### 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                   | Customer  | Carrier/Base Fluid | Water              | 7732-18-5                                | 100.00000                                                  | 85.47331                                                   | None     |
| Sand (Proppant)         | US Silica | Proppant           | Silica Substrate   | 14808-60-7                               | 100.00000                                                  | 8.02268                                                    | None     |
| RCS (Proppant)          | Momentive | Proppant           | Silica Substrate   | 14808-60-7                               | 100.00000                                                  | 2.10941                                                    | None     |
| Hydrochloric Acid (15%) | CNR       | Acidizing          | Hydrochloric Acid  | 7647-01-0                                | 38.80000                                                   | 1.46473                                                    | None     |
| Plexgel 907 LE          | Chemplex  | Polymer            | Mineral Oil        | 64742-47-8                               | 55.00000                                                   | 0.17613                                                    | None     |
|                         |           |                    | Guar Gum           | 9000-30-0                                | 50.00000                                                   | 0.16012                                                    | None     |
|                         |           |                    | Surfactant         | 68439-51-0                               | 2.00000                                                    | 0.00640                                                    | None     |
|                         |           |                    | Bentonite Clay     | 14808-60-7                               | 2.00000                                                    | 0.00640                                                    | None     |
| Plexsurf 240 E          | Chemplex  | Surfactant         | Alcohol Alkoxylate | Proprietary                              | 50.00000                                                   | 0.03628                                                    | None     |
|                         |           |                    | Methyl Alcohol     | 67-56-1                                  | 10.00000                                                   | 0.00726                                                    | None     |
| Plexbor 101             | Chemplex  | Crosslinker        |                    |                                          |                                                            |                                                            |          |



|                                                                                                                                                    |              |                                      |                                                    |             |          |         |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------------------|----------------------------------------------------|-------------|----------|---------|------|
|                                                                                                                                                    |              |                                      | Potassium Metaborate                               | 13709-94-9  | 30.00000 | 0.02783 | None |
|                                                                                                                                                    |              |                                      | Ethylene Glycol                                    | 107-21-1    | 10.00000 | 0.00927 | None |
|                                                                                                                                                    |              |                                      | Potassium Hydroxide                                | 1310-58-3   | 5.00000  | 0.00464 | None |
| Sodium Persulfate                                                                                                                                  | Chemplex     | Gel Breaker                          |                                                    |             |          |         |      |
|                                                                                                                                                    |              |                                      | Sodium Persulfate                                  | 7775-27-1   | 98.00000 | 0.03002 | None |
| 4-N-1 Plus                                                                                                                                         | Chemplex     | Iron Control, Corr Inhib, Surfactant |                                                    |             |          |         |      |
|                                                                                                                                                    |              |                                      | Acetic Acid                                        | 64-19-7     | 80.00000 | 0.02282 | None |
|                                                                                                                                                    |              |                                      | Methanol                                           | 67-56-1     | 10.00000 | 0.00285 | None |
| Clayplex 650                                                                                                                                       | Chemplex     | Clay Stabilizer                      |                                                    |             |          |         |      |
|                                                                                                                                                    |              |                                      | Water                                              | 7732-18-5   | 60.00000 | 0.01354 | None |
|                                                                                                                                                    |              |                                      | Ethanaminium, 2-hydroxy-N,N,N-trimethyl-, chloride | 67-48-1     | 35.00000 | 0.00790 | None |
| Greenhib 679                                                                                                                                       | Chemplex     | Scale Inhibitor                      |                                                    |             |          |         |      |
|                                                                                                                                                    |              |                                      | Proprietary                                        | Proprietary | 35.00000 | 0.00743 | None |
|                                                                                                                                                    |              |                                      | Glycerine                                          | 56-81-5     | 35.00000 | 0.00743 | None |
|                                                                                                                                                    |              |                                      | Water                                              | 7732-18-5   | 30.00000 | 0.00637 | None |
| Plexgel Breaker 10L                                                                                                                                | Chemplex     | Gel Breaker                          |                                                    |             |          |         |      |
|                                                                                                                                                    |              |                                      | Sodium Chloride                                    | 7647-14-5   | 15.00000 | 0.00294 | None |
|                                                                                                                                                    |              |                                      | Mannanase Enzymes                                  | Proprietary | 2.00000  | 0.00039 | None |
| Plexslick 953                                                                                                                                      | Chemplex     | Friction Reducer                     |                                                    |             |          |         |      |
|                                                                                                                                                    |              |                                      | Polyacrylamide-co-Acrylic Acid                     | 9003-06-9   | 31.00000 | 0.00125 | None |
|                                                                                                                                                    |              |                                      | Hydrotreated Petroleum Distillate                  | 64742-47-8  | 30.00000 | 0.00121 | None |
|                                                                                                                                                    |              |                                      | Alcohol Ethoxylate Surfactants                     | Proprietary | 8.00000  | 0.00032 | None |
| Plexcide 15G                                                                                                                                       | Chemplex, LC | Biocide                              |                                                    |             |          |         |      |
|                                                                                                                                                    |              |                                      | Glutaraldehyde                                     | 111-30-8    | 14.00000 | 0.00103 | None |
|                                                                                                                                                    |              |                                      | Alkyl dimethyl benzyl ammonium chloride            | 68424-85-1  | 3.00000  | 0.00022 | None |
|                                                                                                                                                    |              |                                      | Didecyl dimethyl ammonium chloride                 | 7173-51-5   | 3.00000  | 0.00022 | None |
|                                                                                                                                                    |              |                                      | Ethanol                                            | 64-17-5     | 3.00000  | 0.00022 | None |
| Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS. |              |                                      |                                                    |             |          |         |      |
| Other Chemical(s)                                                                                                                                  | Listed Above | See Trade Name(s) List               |                                                    |             |          |         |      |
|                                                                                                                                                    |              |                                      | Mineral Oil                                        | 64742-47-8  | 55.00000 | 0.17613 |      |
|                                                                                                                                                    |              |                                      | Alcohol Alkoxylate                                 | Proprietary | 50.00000 | 0.03628 |      |
|                                                                                                                                                    |              |                                      | Potassium Metaborate                               | 13709-94-9  | 30.00000 | 0.02783 |      |
|                                                                                                                                                    |              |                                      | Ethanaminium, 2-hydroxy-N,N,N-trimethyl-, chloride | 67-48-1     | 35.00000 | 0.00790 |      |
|                                                                                                                                                    |              |                                      | Proprietary                                        | Proprietary | 35.00000 | 0.00743 |      |
|                                                                                                                                                    |              |                                      | Surfactant                                         | 68439-51-0  | 2.00000  | 0.00640 |      |
|                                                                                                                                                    |              |                                      | Bentonite Clay                                     | 14808-60-7  | 2.00000  | 0.00640 |      |
|                                                                                                                                                    |              |                                      | Water                                              | 7732-18-5   | 30.00000 | 0.00637 |      |
|                                                                                                                                                    |              |                                      | Potassium Hydroxide                                | 1310-58-3   | 5.00000  | 0.00464 |      |
|                                                                                                                                                    |              |                                      | Sodium Chloride                                    | 7647-14-5   | 15.00000 | 0.00294 |      |
|                                                                                                                                                    |              |                                      | Methanol                                           | 67-56-1     | 10.00000 | 0.00285 |      |
|                                                                                                                                                    |              |                                      | Polyacrylamide-co-Acrylic Acid                     | 9003-06-9   | 31.00000 | 0.00125 |      |

|  |  |                                         |            |          |         |  |
|--|--|-----------------------------------------|------------|----------|---------|--|
|  |  | Hydrotreated Petroleum Distillate       | 64742-47-8 | 30.00000 | 0.00121 |  |
|  |  | Alkyl dimethyl benzyl ammonium chloride | 68424-85-1 | 3.00000  | 0.00022 |  |
|  |  | Ethanol                                 | 64-17-5    | 3.00000  | 0.00022 |  |
|  |  | Didecyl dimethyl ammonium chloride      | 7173-51-5  | 3.00000  | 0.00022 |  |
|  |  | Ethyl Alcohol                           | 64-17-5    | 10.00000 | 0.00022 |  |
|  |  | Methyl Alcohol                          | 67-56-1    | 40.00000 | 0.00017 |  |

\* 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%

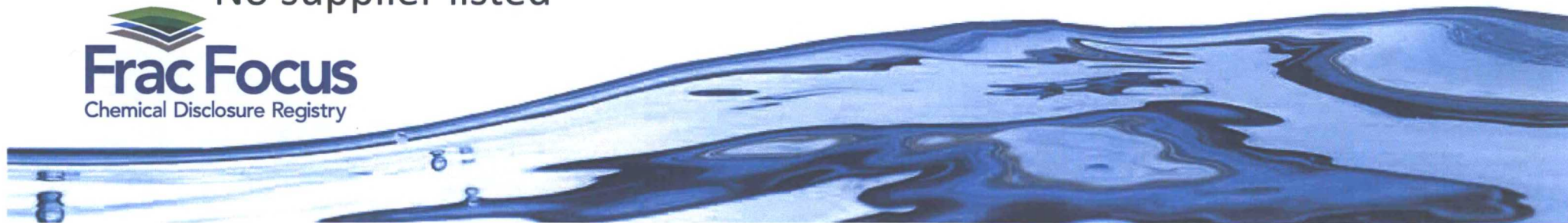
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

# FracFocus 2.0 Validation Checks

---

- State and county auto-filled from API number
- Coordinates checked to be within county boundaries
- Warnings for
  - Invalid CAS #'s
  - Fluid % not within range
  - Bad county numbers by state code
- Errors for
  - Invalid coordinate ranges
  - No entries in Base water or Base non-water volumes
  - No entry in TVD
  - No purpose listed
  - No supplier listed





# Disclosure presentation



HYDRAULIC FRACTURING  
HOW IT WORKS

GROUNDWATER  
PROTECTION

CHEMICAL  
USE

REGULATIONS  
BY STATE

FIND A WELL  
BY STATE

FREQUENT  
QUESTIONS

## Find a Well

### SEARCH OPTIONS

STATE:

Colorado

COUNTY:

Choose a County

WELLS IN COUNTY:

Choose a Well Name

OPERATOR:

Anadarko Petroleum Corporation

API WELL NUMBER:

---

WELL NAME:

---

SEARCH

RESET

(Note: One search option is required to do a search.)

All FracFocus well site information is voluntarily provided by participating oil and natural gas operators. Wells hydraulically fractured after January 1, 2011 will be added to the database over time.

See the full list of [participating production companies](#).



### LATEST WELLS



API Number: 3002536929  
Well Name: Pitchblende 27 Fed #1H  
Operator: EOG Resources, Inc.



API Number: 4304750776  
Well Name: NBU 921-17B  
Operator: Anadarko Petroleum Corporation



API Number: 3001538291  
Well Name: Elk Wallow 11 State #4H  
Operator: EOG Resources, Inc.



API Number: 4304751248





## Find a Well

[← Back To Search](#)

[Next Page](#)

Page  of 25 [Go](#)

|                                                                                     | API No.      | Job Date  | State    | County  | Operator                   | WellName            | Well Type | Latitude  | Longitude   | Datum |
|-------------------------------------------------------------------------------------|--------------|-----------|----------|---------|----------------------------|---------------------|-----------|-----------|-------------|-------|
|    | 05-001-09723 | 1/8/2011  | Colorado | Adams   | Anadarko Petroleum Corp... | TALON VIEW 3-9      | Gas       | 39.982340 | -104.898600 | NAD83 |
|    | 05-001-09724 | 1/8/2011  | Colorado | Adams   | Anadarko Petroleum Corp... | TALON VIEW 5-9      | Gas       | 39.982383 | -104.898600 | NAD83 |
|    | 05-001-09721 | 1/8/2011  | Colorado | Adams   | Anadarko Petroleum Corp... | TALON VIEW 6-9      | Gas       | 39.982252 | -104.898599 | NAD83 |
|    | 05-001-09719 | 1/14/2011 | Colorado | Adams   | Anadarko Petroleum Corp... | TALON VIEW 11-9     | Gas       | 39.982210 | -104.898599 | NAD83 |
|    | 05-001-09722 | 1/17/2011 | Colorado | Adams   | Anadarko Petroleum Corp... | TALON VIEW 12-9     | Gas       | 39.982169 | -104.898599 | NAD83 |
|    | 05-001-09725 | 1/11/2011 | Colorado | Adams   | Anadarko Petroleum Corp... | TALON VIEW 21-9     | Gas       | 39.982295 | -104.898600 | NAD83 |
|  | 05-001-09720 | 1/20/2011 | Colorado | Adams   | Anadarko Petroleum Corp... | TALON VIEW 22-9     | Gas       | 39.982129 | -104.898598 | NAD83 |
|  | 05-001-08991 | 4/25/2011 | Colorado | Adams   | Anadarko Petroleum Corp... | YORK NORTH 13-12 #3 | Gas       | 39.977350 | -104.957217 | NAD83 |
|  | 05-001-09111 | 4/20/2011 | Colorado | Adams   | Anadarko Petroleum Corp... | DREYER #1           | Gas       | 39.989650 | -104.684286 | NAD83 |
|  | 05-069-06420 | 1/29/2011 | Colorado | Larimer | Anadarko Petroleum Corp... | ENCORE 4-12         | Gas       | 40.420216 | -104.954907 | NAD83 |
|  | 05-069-06423 | 1/29/2011 | Colorado | Larimer | Anadarko Petroleum Corp... | ENCORE 18-12        | Gas       | 40.420161 | -104.954909 | NAD83 |
|  | 05-069-06407 | 1/25/2011 | Colorado | Larimer | Anadarko Petroleum Corp... | MIRACLE 10-12       | Gas       | 40.413925 | -104.953288 | NAD83 |

# Disclosure presentation



**HYDRAULIC FRACTURING**  
HOW IT WORKS

**GROUNDWATER**  
PROTECTION

**CHEMICAL**  
USE

**REGULATIONS**  
BY STATE

**FIND A WELL**  
BY STATE

**FREQUENT**  
QUESTIONS

## Find a Well

### SEARCH OPTIONS

STATE:

Colorado

COUNTY:

Choose a County

WELLS IN COUNTY:

Choose a Well Name

OPERATOR:

Anadarko Petroleum Corporation

API WELL NUMBER:

WELL NAME:

SEARCH

RESET

(Note: One search option is required to do a search.)

All FracFocus well site information is voluntarily provided by participating oil and natural gas operators. Wells hydraulically fractured after January 1, 2011 will be added to the database over time.

See the full list of [participating production companies](#).

### LATEST WELLS



API Number: 3002536929  
Well Name: Pitchblende 27 Fed #1H  
Operator: EOG Resources, Inc.



API Number: 4304750776  
Well Name: NBU 921-17B  
Operator: Anadarko Petroleum Corporation



API Number: 3001538291  
Well Name: Elk Wallow 11 State #4H  
Operator: EOG Resources, Inc.



API Number: 4304751248





## Find a Well

Map Search Standard Search

STATE:

Colorado

COUNTY:

Choose a County

WELLS IN COUNTY:

Choose a County First

OPERATOR:

Choose One

API WELL NUMBER:

---

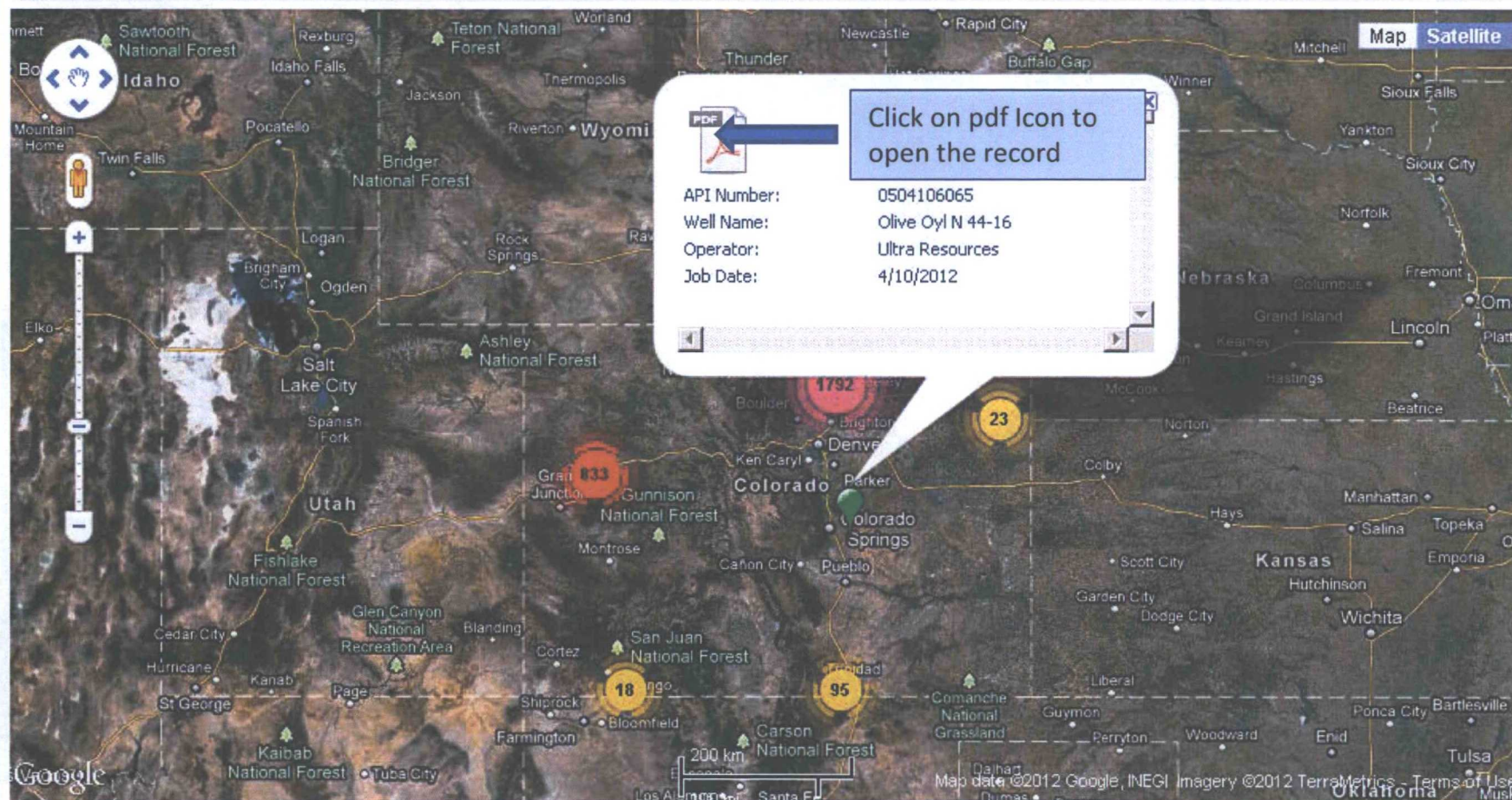
WELL NAME:

-----

Search

Reset

Not Seeing Map Markers? Please Click The "Reset" Button (left).





# FracFocus 3.0

---

1. Independent reviews and suggestions
2. Public input on system functionality
3. FracFocus systems and security audit
4. Secretary of Energy Advisory Board recommendations

