

Propellant Stimulating

TCP Specialists LLC



### New Generation of Propellants

- 1)  $\ln(x^a) = a \ln(x)$
- 2)  $\ln(x^a)^b = b \ln(x^a)$
- 3)  $\ln(x^a)^b = b \ln(x^a)$
- 4)  $\ln(x^a)^b = b \ln(x^a)$
- 5)  $\ln(x^a)^b = b \ln(x^a)$
- 6)  $\ln(x^a)^b = b \ln(x^a)$



- **New Generation of Propellants**



- **Power of Rocket Fuel**



- **New Generation of Propellants**



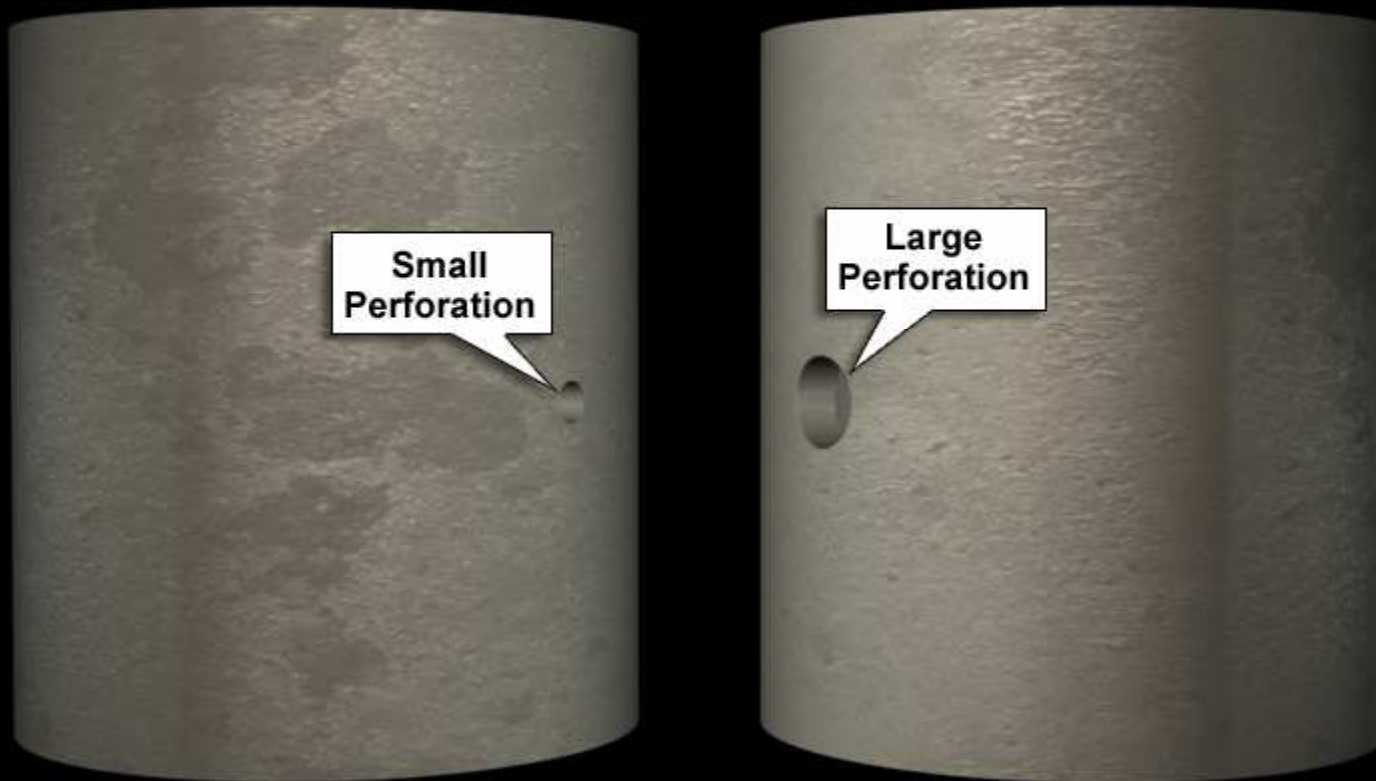
- **Power of Rocket Fuel**



- **Accurately Predict, Control & Measure**

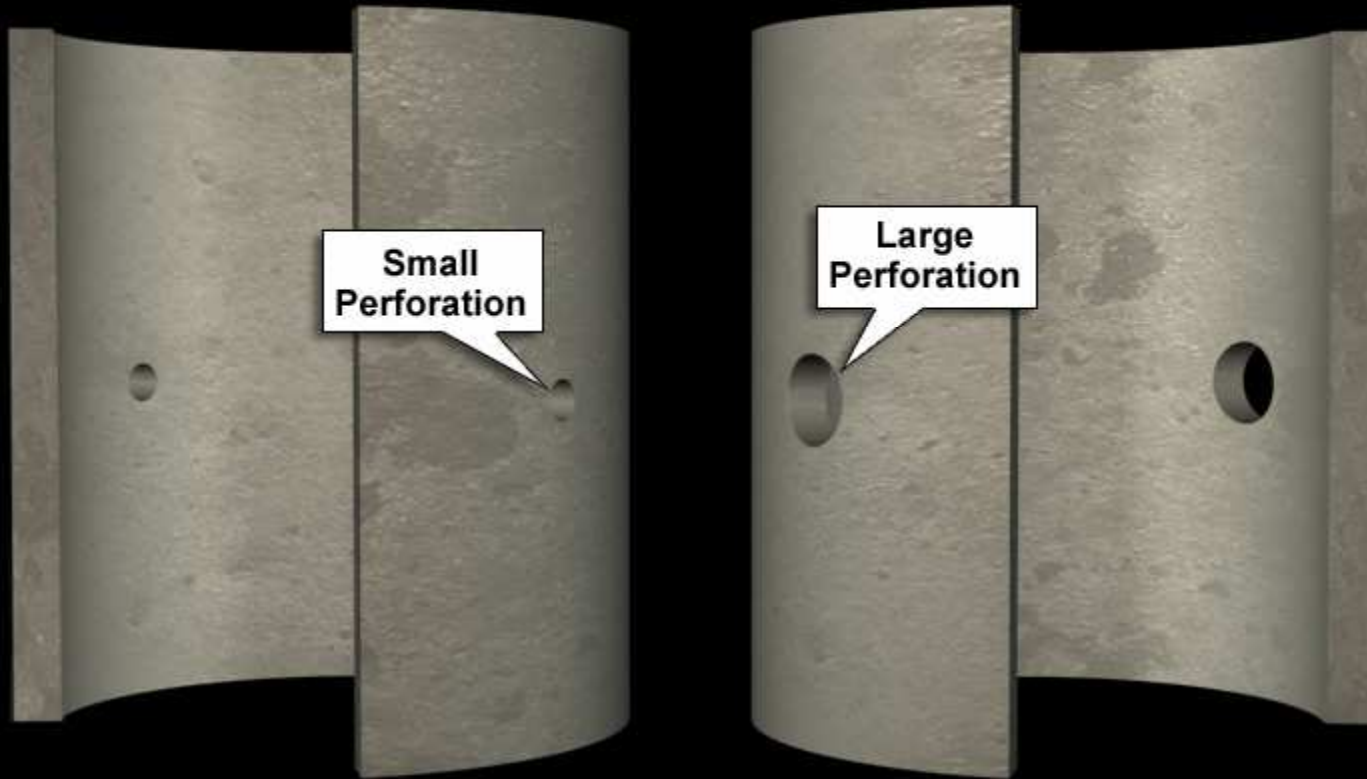
4a

## More Perforating Options

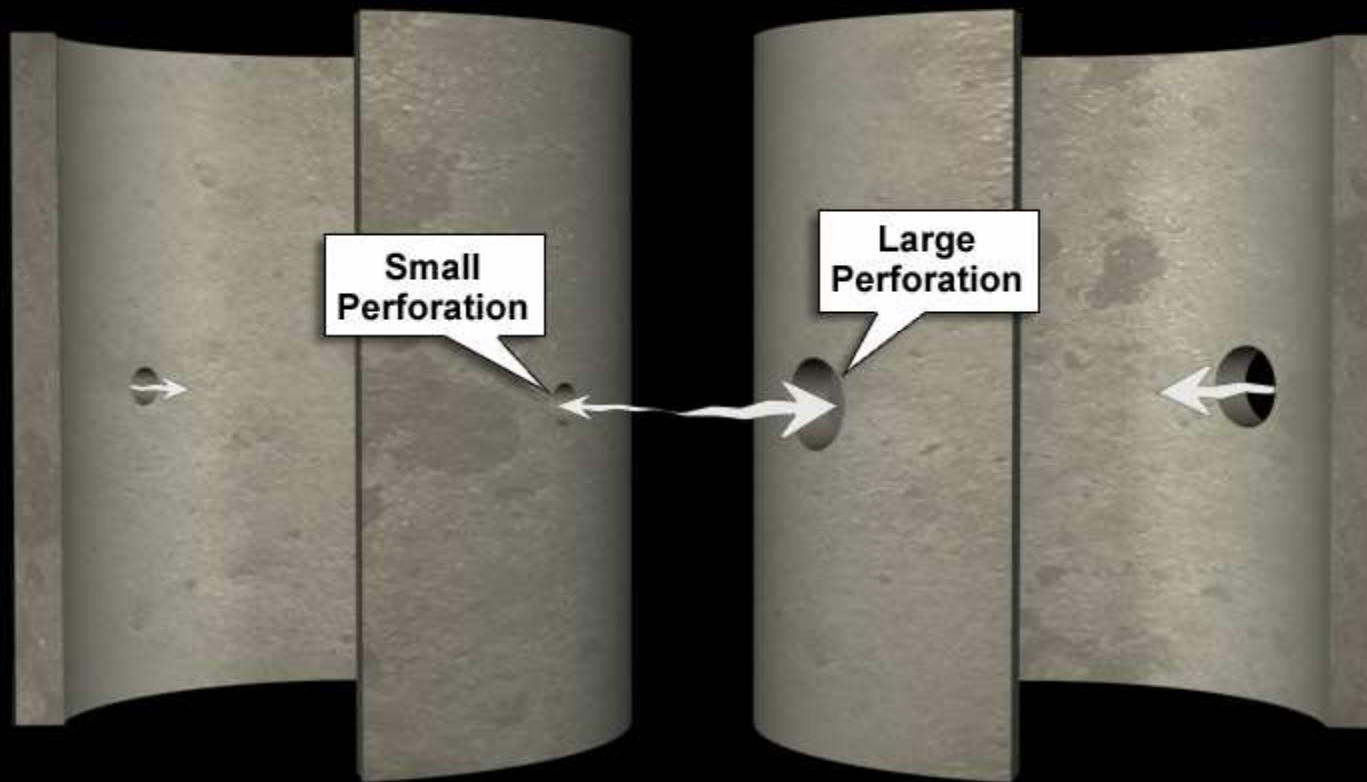


4b

## More Perforating Options



## More Perforating Options

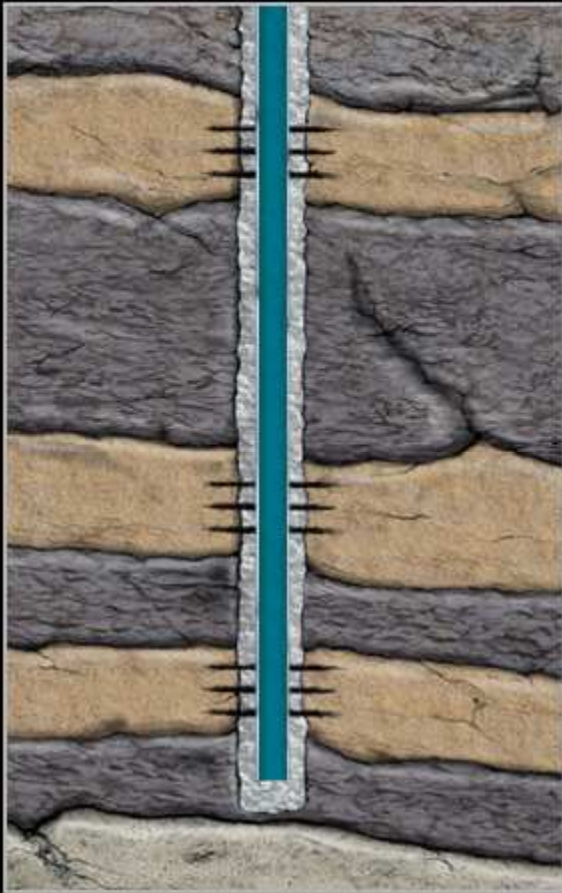




- **Simple to Deploy**
- **More Economically Attractive**
- **More Effective**
  - **Close Water Contact**
  - **Multiple Open Intervals**
  - **Skin Damaged Perforations**



TCP, Coil Tubing, Electric Line, or Slick Line



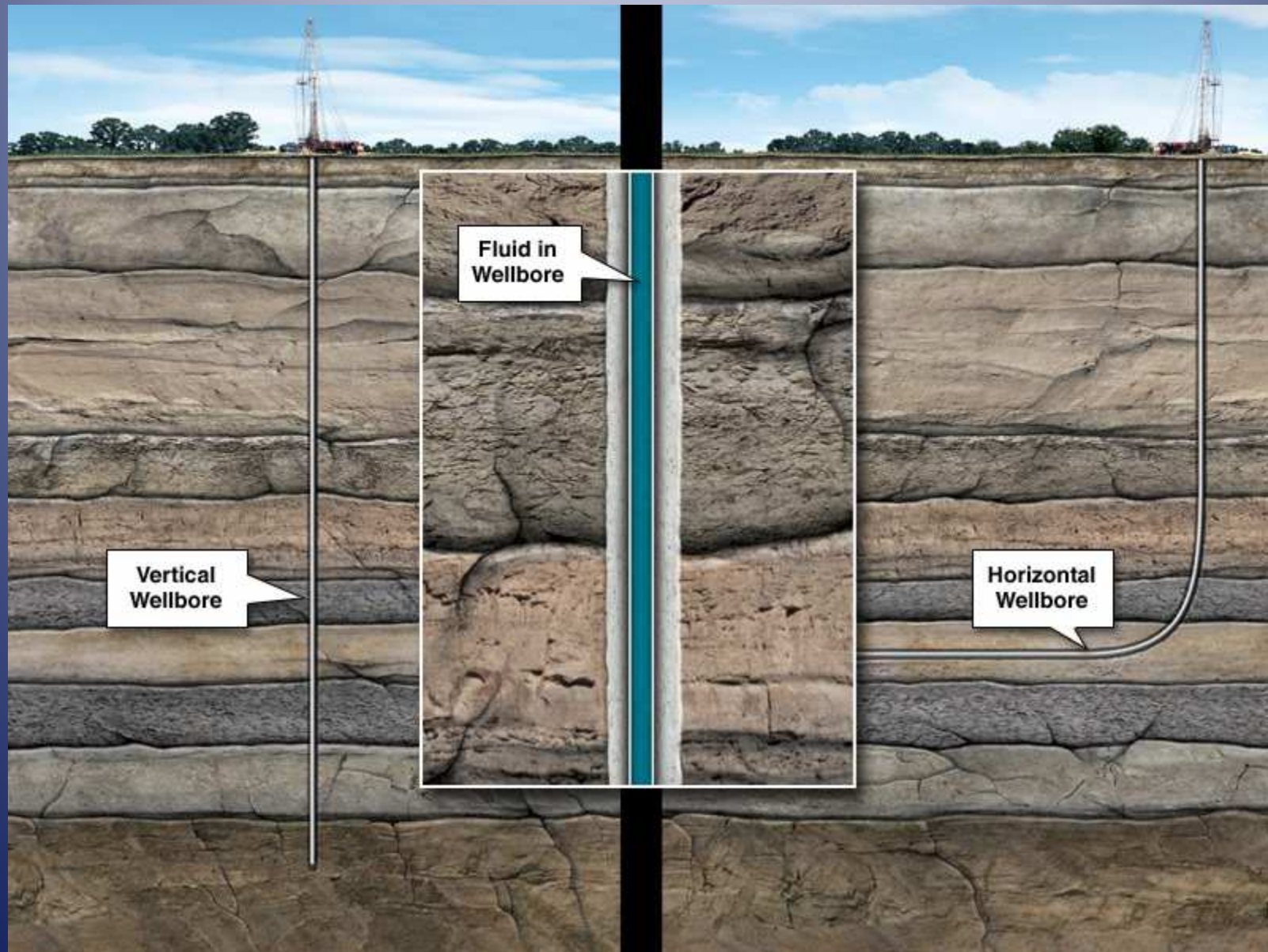
- **Multiple open intervals**
- **Close water contact**
- **Transitional stress well bores**
- **Fluid sensitive formations**

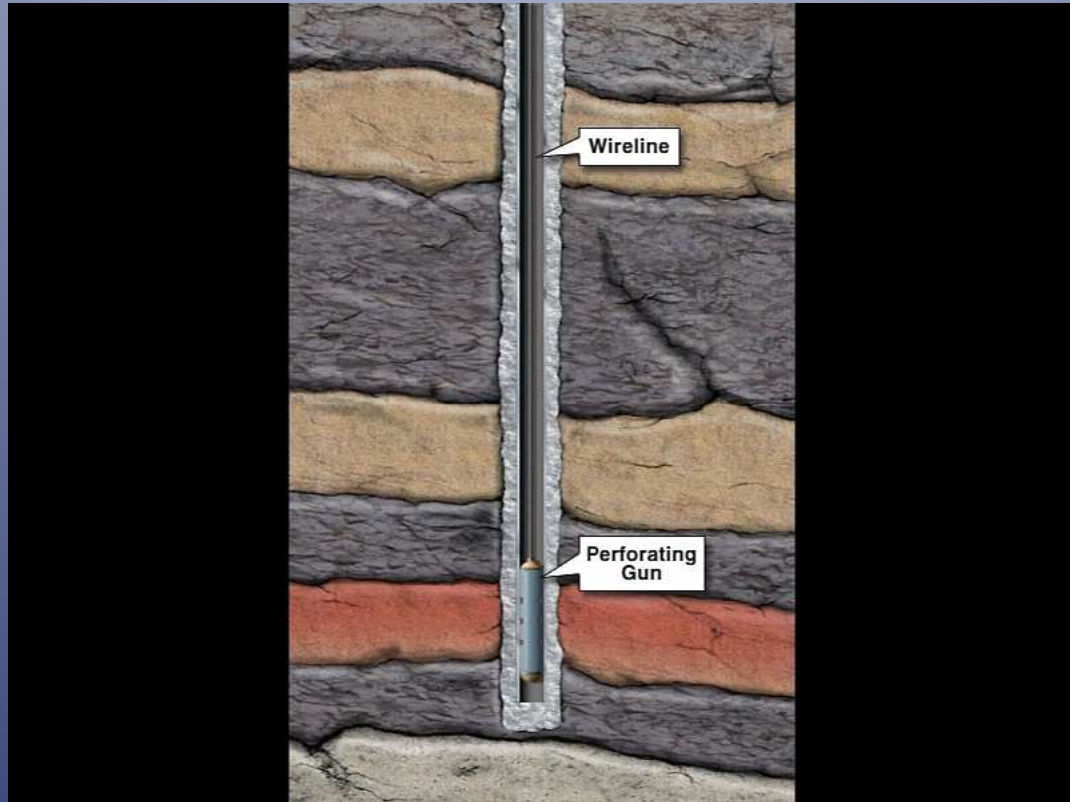
## Perfect Solution for:

- Opening multiple fractures in disposal or injection wells...
- Delivering higher pressures to initiate a hydraulic frac...
- Avoiding contact with close water zones...
- Cleaning precipitants that are clogging the near well-bore space...
- Cleaning the well-bore without putting stress on and damaging the tubular...
- Shooting through multiple casing strings...
- Treating well-bores containing multiple open zones without packing each zone off...
- Or, to make production evaluations to see if further work is justified.

13a



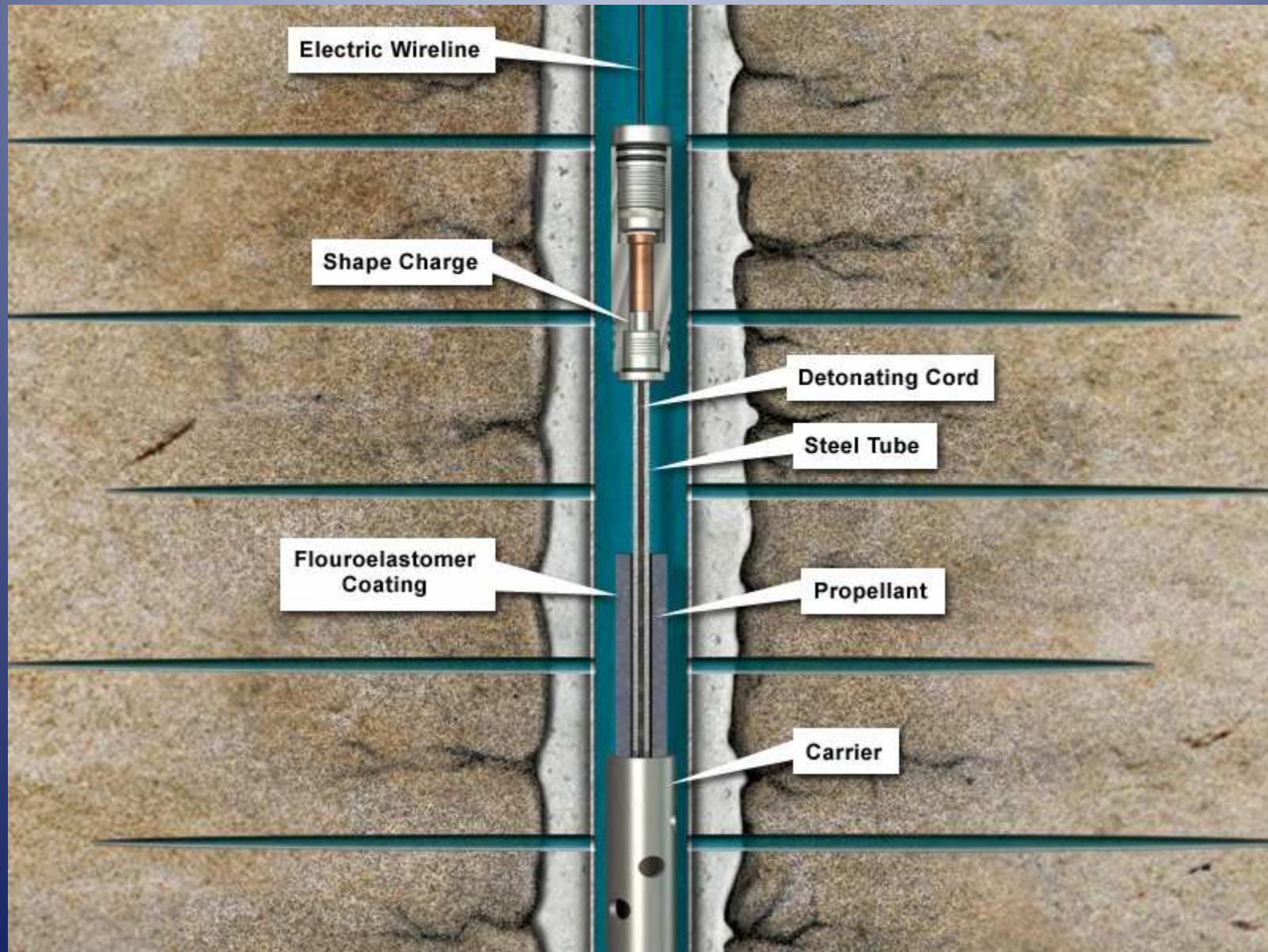




20a



22h



22j



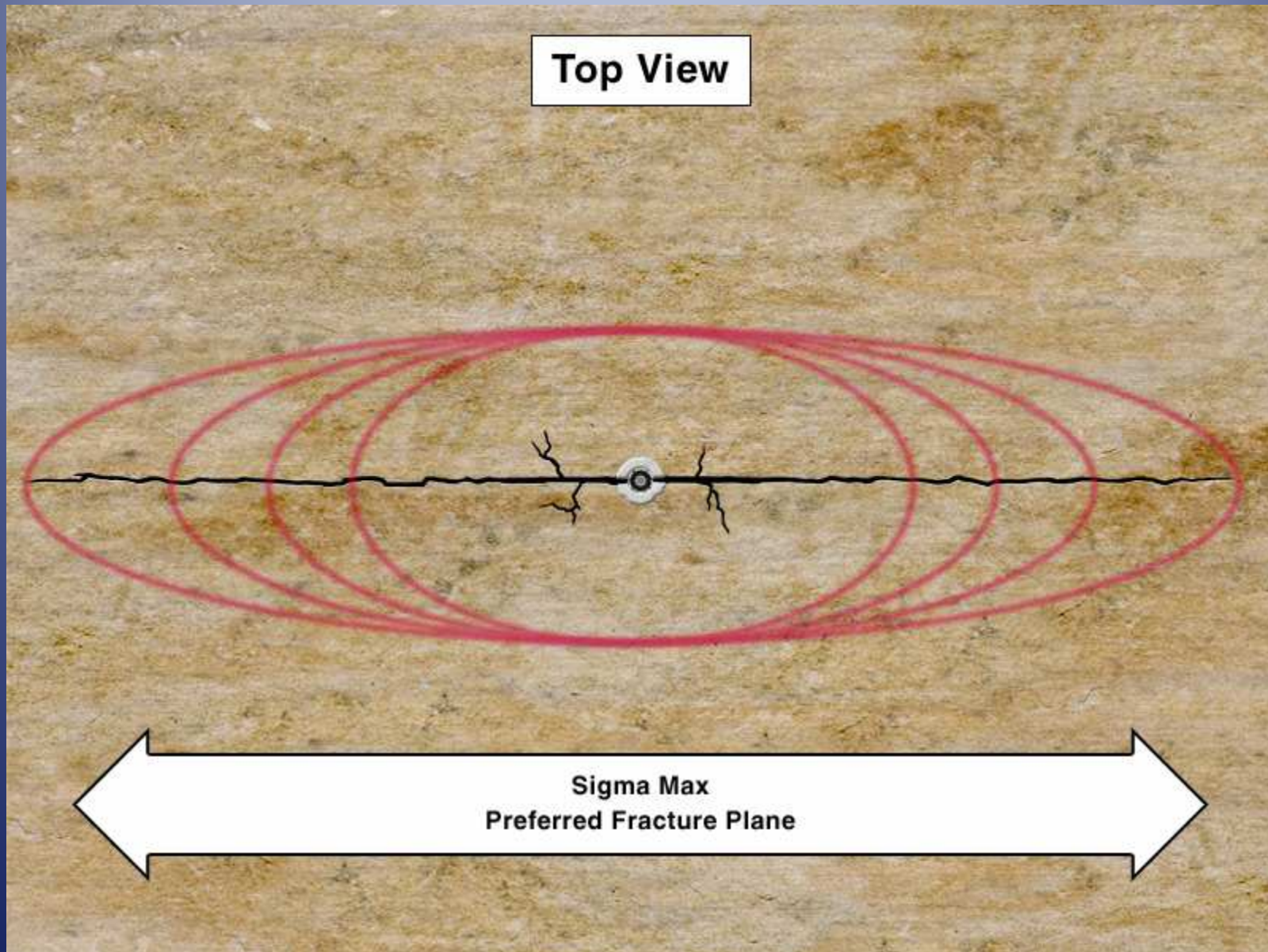
22k



## 23-30 sample animation



33a



## Volumetric Energy Comparison

