



The Outlook for Hydrogen in San Juan County

John Byrom

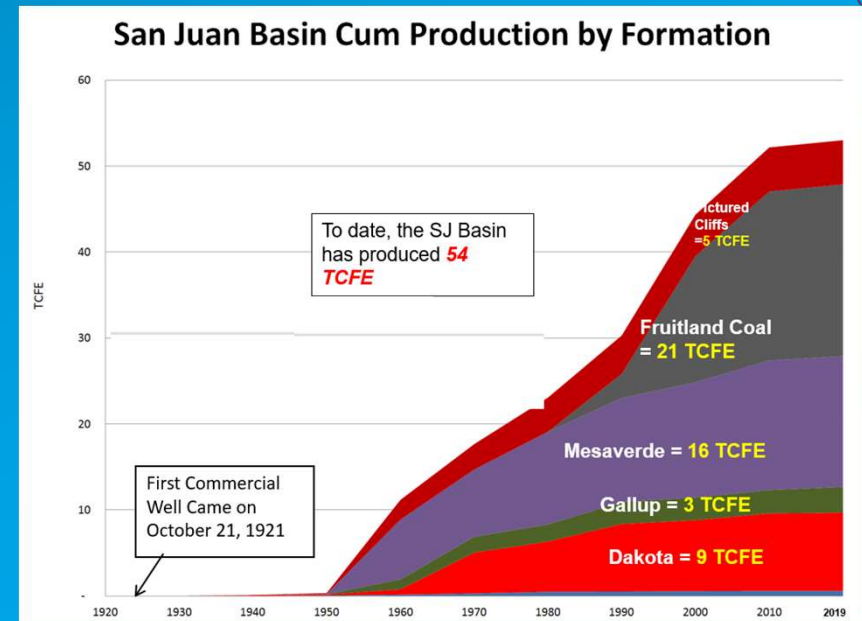
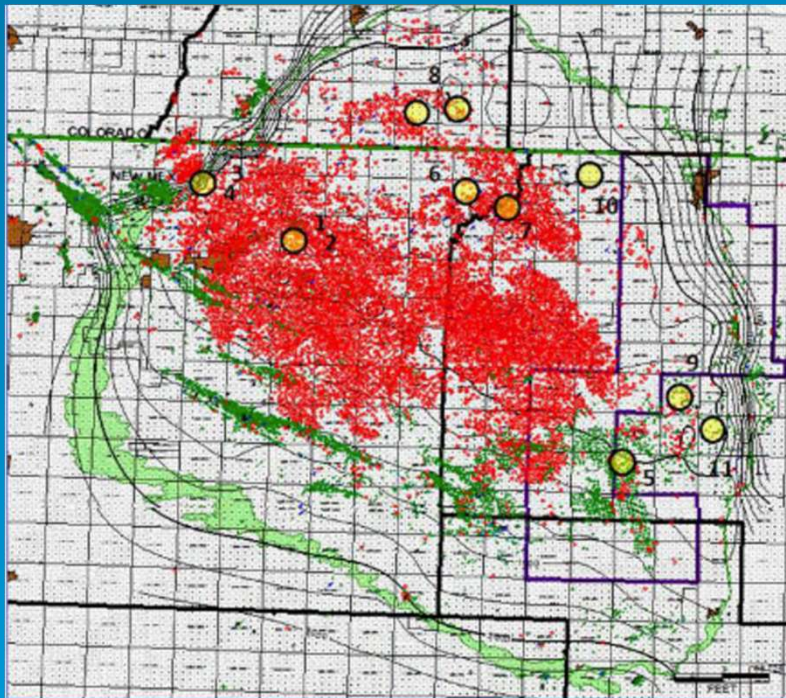
Process Equipment and Service Company, Inc.

April 6th, 2023

San Juan College School of Energy

Geology – Hydrocarbon Rich

- Mancos Play has just begun
- Wells are world class



Source: 4Cornered.com
Merrion Oil and Gas

Electrical Generation

- **Electrical transmission grid**

- 500 MW of transmission capacity
- Gas turbine

- **Coal Fired**

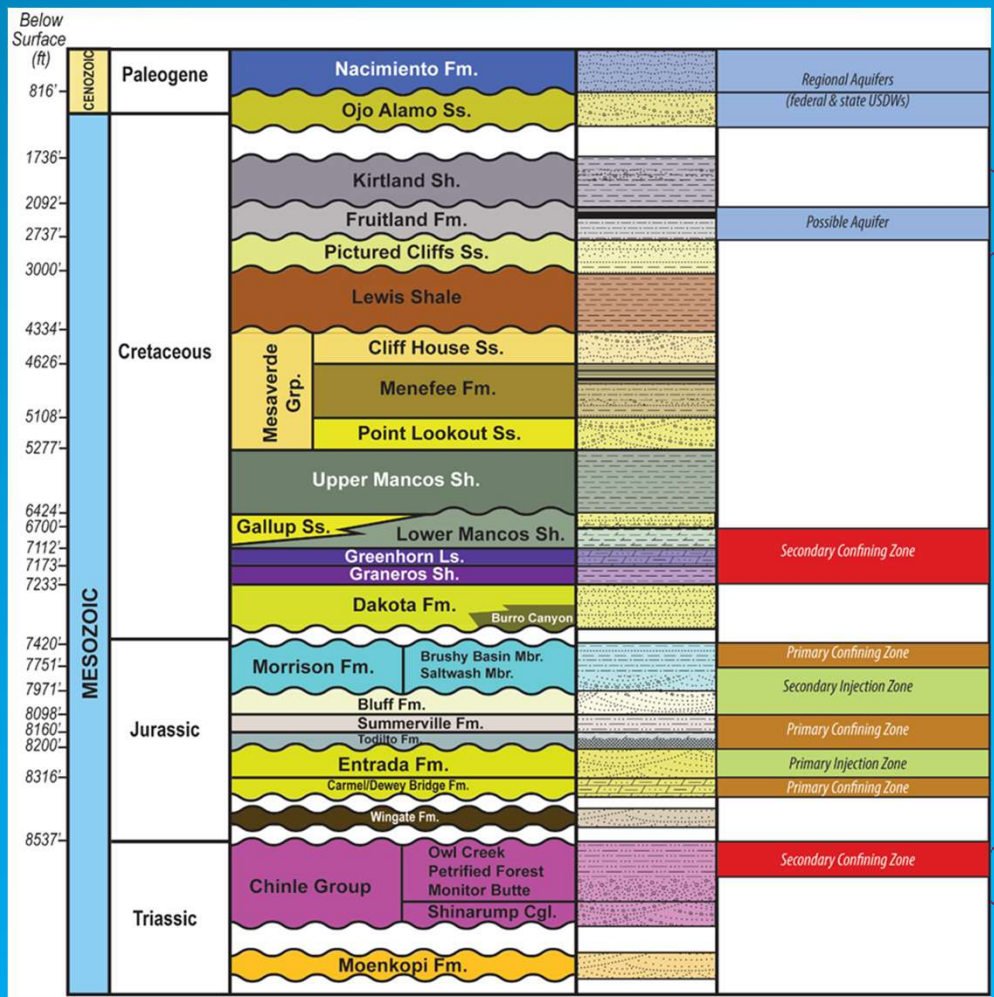
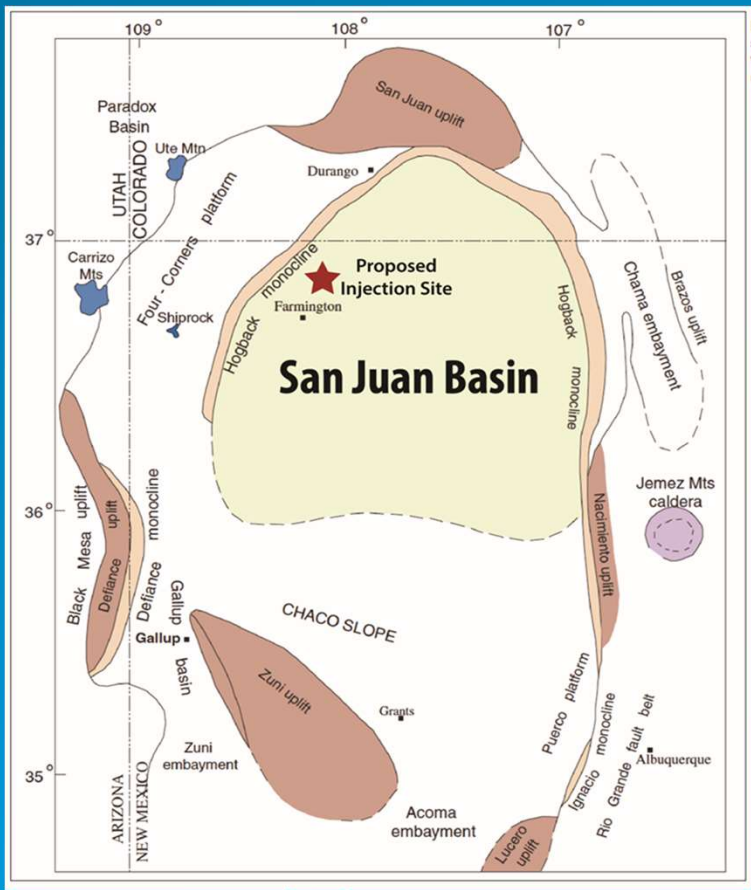
- **Four Corners Power Plant (APS)**

- **Solar Power**

- **Major solar projects planned**
 - ~100's of megawatts



Storage Complex @ SJ Basin



Hydrogen Fuel for Transportation



Source: Bureau of Transportation Statistics;
BayoTech



Hydrogen Fueling Station Concept

- **Major Highway Corridor**
 - Salt Lake to Albuquerque
 - Phoenix to Denver
- **Industrial Farming**
- **Rail**
 - Hydrogen powered???
- **Pipelines – existing Nat Gas**
 - Hydrogen blending

Equipment Manufacturing



- PESCO
 - Process Equipment
 - 480 employees, 70% Native American

Produced Water Treatment Unit



NEW MEXICO TECH
SCIENCE • ENGINEERING • RESEARCH UNIVERSITY

BayoTech / PESCO



Hydrogen Production Unit

- Modular Steam Methane Reformer
- 20 New Jobs, more to come...

NW New Mexico has a Strong Base of Industrial Fabrication and Machine Shops

NW NM Hydrogen Hub Projects

- o **NAPI Project**



- o Large Farm Hydrogen Generation and Use demonstration project

- o **Avangrid**

- o Green hydrogen/ammonia plant to service regional needs for
 - o fertilizer, power and other industrial needs



- o **Libertad**

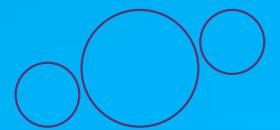
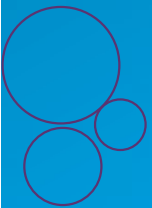
- o Electrolysis H2 Generation w offtake for heavy haul and power gen

Libertad Power



Challenges

- o **Permitting:** Majority Federal Lands in Northwest New Mexico
 - o Oil and Gas Wells, Solar Fields, CO2 Sequestration, New Hydrogen Facilities; Pilot Projects
- o Generating **Public Support:** Loss of San Juan Generating Station was missed opportunity. Probably Two Thousand jobs; \$Millions
- o Transportation: **Rail**
- o **Funding help for scaling up production to commercialize technologies** that lead to new products for local use and for local manufacturing
- o **Education and Training:** San Juan College; High Schools; Job Training at businesses
- o Funds to help bolster **4 Corners Economic Development**
 - o **Grant writing** help



Invitation to Visit PESCO

- o *Morning tour – please see me if you are interested*

