

HYDRÖZONIX



About Us

Hydrozonix™ is a Strategic Alliance Formed Between the Principles of Ely & Associates, Inc. Phillips & Jordan, Inc. and Siboney Contracting Company to Assist Energy Exploration and Production Companies with their Fracturing and Water Recycling Programs using Environmental Solutions & Clean Technologies



120 + Years of Combined Service



- Ely and Associates, Inc. was founded in May 1991 by John Ely and three other partners. The company is headquartered in Houston and currently has 45 engineers and three support people on staff. The company is dedicated to providing a blend of practical and technical expertise on well completion, stimulation fluids, equipment management and reservoir analysis. In 2010, Ely and Associates supervised more than 8,000 frac treatments.



- Phillips and Jordan, Inc. (P&J) is a general and specialty contractor established in 1952 with 13 offices located in the Southeast and one in California. For over 60 years, P&J has specialized in land clearing, earthmoving, underground utilities, erosion control, storm drainage, debris management, land clearing & site preparation for oil & gas operations



- Siboney is a transportation logistics provider with offices in West Palm Beach, Orlando, Jacksonville, and New Orleans. Siboney has provided a wide range of transportation and sourcing solutions for over 35 years

Environmental Solutions & Services

- Hydraulic Fracturing Operations
- Flowback & Produced Water Recycling
- Central Water Recycling Facilities
- Water Transfer Logistics
- Reclamation Pond Remediation

Eliminate Chemicals & Mitigate Risk

HYDRÖZONIX Eliminates Biocides used to manage bacteria growth downhole that can contribute to well souring and corrosion

HYDRÖZONIX Eliminates Scale-Inhibitors used to manage scale deposition in the reservoir and in casing / tubulars

HYDRÖZONIX Reduces Friction Reducers used to manage surface treating pressures and reduce fluid turbulence during the frac

Industry Concerns

- Water Resourcing and Permitting Issues
- Availability and Cost of Disposal
- Regulatory Changes
- Compatibility of Recycled Waters with Traditional Frac Systems
- Challenges of Recycling Water
- Political Pressure and Stakeholder Perception
- HSE Issues:
 - Hazardous Chemicals
 - Road Damage & Impact on Infrastructure

Why Should Operators Recycle Water ?

- Less Fresh Water Consumption Eases Sourcing Concerns
- Reduces The Need For Disposal
- Reduces Regulatory Exposure
- Reduces Truck Traffic and Impact On Roads
- Extends the Economic Viability of the Play
- Improves Stockholder Perception
- Reduces The Operations Environmental Impact

Where to Treat Water ? On-Site



Where to Treat Water ? Off-Site



Case Study # I On-Site Treatment - Fayetteville Shale



How to Eliminate Hazardous Chemicals at 120 bbl/min (5,000 gal/min) On-Site?

Case Study # I On-Site Treatment - Fayetteville Shale

- Operations Began in Nov. 2009 *
- 100% of Frac Fluid Treated On-Site, “On The Fly”
- Eliminating Chemicals
- Destroying Bacteria
- Averaging 9 Wells Per Month
- Continuous Operations (24/7)



* Ecosphere Energy Services, LLC

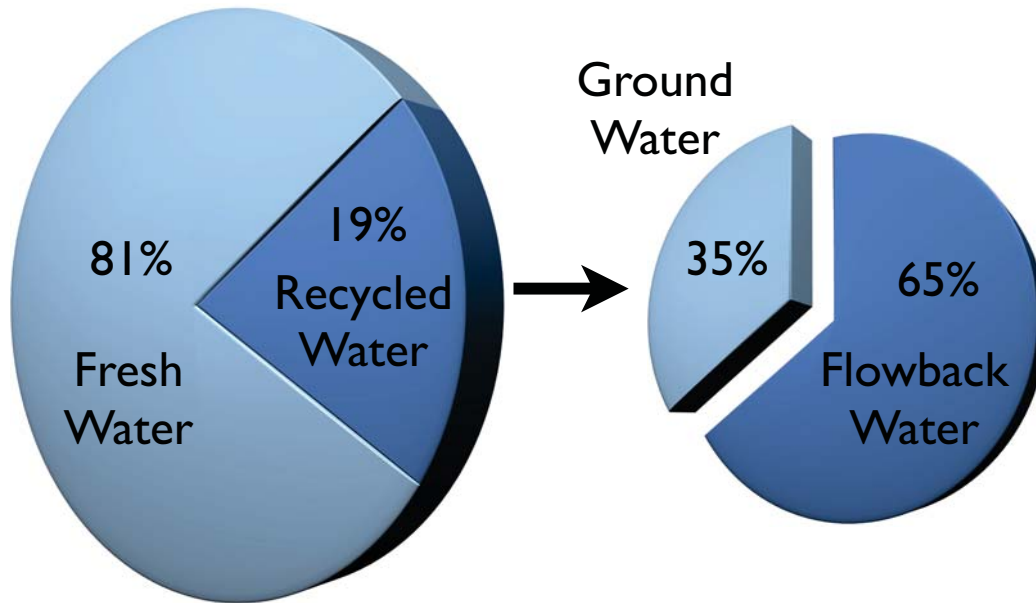
Case Study # I On-Site Treatment - Fayetteville Shale

oZONIX® FACTS:

- 15,000,000 + bbl Processed
- 1,400 + Frac Stages
- 120 + Wells Completed
- 120 bbl/min Capabilities



Case Study # 1 Typical Fayetteville Frac Blend



High of 41% Recycled Water
Approximately 125,000 bbl / Well
Approximately 500 Wells / Year

**11,875,000 bbl of Fresh Water
Saved Per Year**

Case Study # 2 Off-Site Treatment - Woodford Shale



How to Recycle Produced Water at a Centralized Facility?

Case Study # 2 Off-Site Treatment - Woodford Shale

- Operations Began in Dec. 2008 *
- 100% Treated at a Central Location:
 - Recycled Produced Water
 - Flowback Water
- Ozonix Technology + Coagulation
+ TSS Separation (1-5 μm)



* Ecosphere Energy Services, LLC

Case Study # 2 Off-Site Treatment - Woodford Shale

ozonix® FACTS:

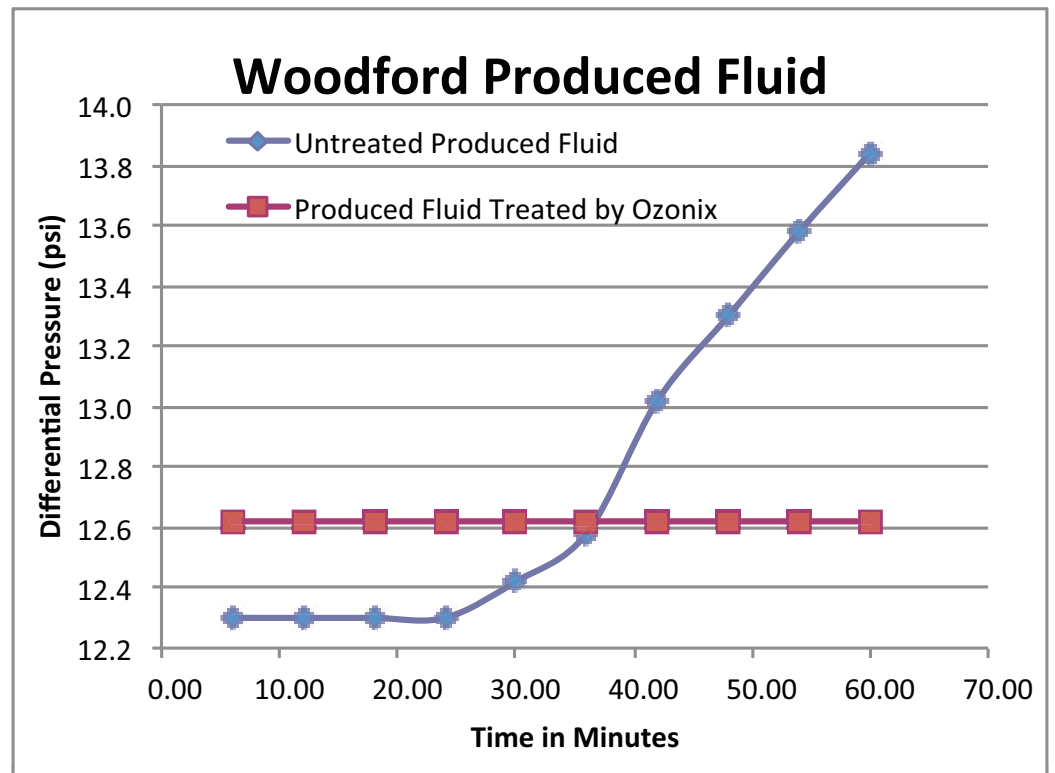
- 915,000 + bbl Processed
- 200 Wells Completed
- TDS Range:
 - 160,000 - 180,000 mg/l



Case Study # 2 Scale Inhibition

Centralized Facility Scenario:

- Dynamic Tube Blocking Test:
 - Measures Scale Inhibition
 - Conducted by Third Party (Weatherford Labs)
- 170,000 mg/l TDS
- Treated at 200 bbl/Hour
- Fluid treated at 200 barrels per hour



Benefits

- High-Flow-Rate Microbial & Scale Control
- Eliminates Costly & Hazardous Chemicals
- Oxidizes Soluble Organics
- Provides High-Volume Recycling Capabilities
(Up to 2,500 GPM Per Unit)
- No Secondary Waste
- Environmentally Safe

Technology

Ozone + Hydrodynamic Cavitation + Acoustic Cavitation + Electro Oxidation



USPTO Green Tech Fast Track Program

Approved Patents: United States Patent No. 7,699,994 United States Patent No. 7,699,988 United States Patent No. 7,785,470

Introducing the Hydrozonix EF60

The World's Highest Volume, Mobile, Non-Chemical Water Treatment Technology



60 Barrels Per Minute
2,500 Gallons Per Minute



Approved United States Patents: No. 7,699,994 / No. 7,699,988 / No. 7,785,470

HYDRÖZONIX

Introducing the Hydrozonix EF60



The Ecosphere :o:ONIX® Evolution

Customer Driven Evolution



EF-10 (EF-600)

Rated for 10 Barrels Per Minute



EF-20 (EF-1200)

Rated for 20 Barrels Per Minute



EF-60

Rated for 60 Barrels Per Minute



Implications for Operators

	ELIMINATE HAZARDOUS CHEMICALS	RECYCLE FLUID
BENEFITS	Replace Biocides and Scale Inhibitors Improve Friction Reducer Compatibility	Reuse Flowback Water and Produced Fluid
HEALTH & SAFETY	Eliminate Dangerous Exposure to Chemicals	Reduce Truck Traffic Keep NORM in a Closed-Loop
ENVIRONMENT	Eliminate Chemical Spills	Reduce CO2 Emissions Reduce Fresh Water Usage
POLITICAL RHETORIC	"Injecting Chemically-Laden Fluid..."	"Depleting Fresh Water Sources...."
COST CONSIDERATIONS	Biocide Cost Scale Inhibitor Cost Friction Reducer Cost	Freshwater Purchasing and Transfer Trucking Hours Injection Cost Road Repair

Combined Clients Served

- Abraxas Petroleum Corp
- Acock/Anaqua Operating Company
- Advanced Resources Intl
- AEC Oil & Gas
- Aexco
- AGIP
- Agio Oil & Gas Corporation
- Al Furat Petroleum Company
- Allegro Investments, Inc.
- Altura
- American Exploration
- Americo Energy
- Amoco
- Anadarko Petroleum Corporation
- BK Energy Corporation
- BP America, Inc.
- Barrett Resources
- Basal Corporation
- Basin Exploration Inc
- Bass Enterprises
- Beartooth
- Benchmark Research & Technology
- Bettis Boyle & Stovall
- Bettis Brothers Inc
- Blue Ridge Group
- Bolding Chemical, Inc
- Bonneville Fuels Corporation
- Bridge Oil Company
- Brigham Oil & Gas
- British-Borneo Exp Inc
- Browning Oil Company
- Burlington Oil & Gas
- CWF Energy, Inc
- C.W.Trainer
- Calpine Natural Gas Company
- Calvin Resources, Inc
- Cane River Resources
- Capataz Operating
- Carbo Ceramics
- Carbon Energy Corp
- Carrizo Oil & Gas
- Carson Energy Corporation
- Cawley, Gillespie & Associates
- Chaparral Energy
- Chemical Blending Services
- Chesapeake Energy Corp.
- Chevron USA Production
- Cimarron Energy
- Citation Oil & Gas Corporation
- Clayton Williams Energy, Inc.



Combined Clients Served

- CNG Producing Company
- Coastal Consulting
- Coastal International
- Coastal Oil & Gas Corp
- Cobb & Associates
- Cobra Oil & Gas
- CoHo Resources
- Collins & Ware Inc
- Conoco Inc
- Conquest Oil
- Cox & Perkins Exploration
- Crest Resources
- Cursader Energy Corp.
- Cypress E & P Corp
- Dale Operating
- Dallas Production Inc
- Davis Brothers Oil Producers
- Davis Petroleum Corporation
- Devon Energy Corporation
- Dev X Energy
- Domain Energy Corp
- Dominion Energy & Production
- Drum Energy
- DSTJ
- Dyne Exploration Co
- Dyna Coil
- ECA Holdings, LP
- Edge Petroleum Corporation
- EEX Corporation
- El Paso
- Energy Corporation of America
- Energy Development Corporation
- ENI Petroleum
- Enron Oil & Gas
- Enserch Oil & Gas
- Ensign Oil & Gas
- EOG
- ERCO
- Essenjay Petroleum Corp
- ETOCO
- Evergreen Operation
- Exco Resources Inc
- Exeter Energy Services L.L.C.
- Extex Production Inc
- Exxon Company USA
- Fairway Minerals Corp
- Falcon Seaboard Resources
- Fancher Oil LLC



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- Extex Production Inc
- Exxon Company USA
- Fairway Minerals Corp
- Falcon Seaboard Resources
- Fancher Oil LLC
- Fina Oil & Chemical
- First Sourcenergy Group
- Forcenergy
- Forest Oil Corporation
- Fortson Oil Company
- FW Oil Interests
- Gas Research Institute
- Gas Technology Institute
- Genesis Producing
- Geomet Inc
- Grace Oil Company
- Great Western
- Greenwood Holdings, Inc
- HS Resources Institute
- Hanagan Petroleum Corp
- Hardy Oil & Gas
- Harrison Interest
- Headington Oil Company
- Henderson Petroleum Corp.
- Heritage Energy Company
- Heritage Resources
- Houston Exploration Company
- Hunt Oil Company
- Hydrocarbon Operating
- Integrated Petroleum Resources
- IP Petroleum
- John Wright Company
- Johns Energy LLC
- Jorford Corporation
- J & W Engineering
- JMA Resources Inc
- J.M. Huber Corporation
- Kan Map Inc
- KCS Medallion
- KCS Resources
- Kelly Oil & Gas



Combined Clients Served

- Kerr McGee Corporation
- Kinder Morgan
- King Ranch Oil & Gas
- Kytex Inc
- Laguna Oil & Gas
- Langham Petroleum
- Legend Natural Gas, LP
- Lightning Oil Company
- Loudon Exploration, Inc
- Louis Dreyfus Natural Gas
- Lundberg Operating Company, Inc
- Lynx Energy Company
- Maersk Oil & Gas
- Magnum Producing & Operating Co.
- Mainland Energy Corp
- Marathon Oil Company
- Marshall & Winston
- Marquez Energy, LLC
- McKay Oil Corp
- McKenzie Methane
- MexPetrol
- Meridian Oil
- MGC Resources
- Midcon Gas Services
- Midland Resources Inc
- Millennium Offshore Group
- Miller Energy
- Miller Exploration Company
- Milo Petroleum Company
- MIM Holdings Ld
- Mission Resources
- Mitchell Energy
- Mobil E&P US
- Mustang Fuel Corp
- Natchez Production, Inc.
- National Energy Group
- Natural Gas Pipeline Co. of America
- Nearburg Producing Company
- Neuman Production
- Newfield Exploration Co
- Newfield Exploration Mid-Cont. Inc.
- NExt
- Norcen Explorer, Inc
- North Central Oil Corp
- Norton Company
- Ocean Energy



Combined Clients Served

- Odegard Energy
- Odyssey Petroleum
- Oklahoma RB Operating
- O'Ryan Oil & Gas
- Output Exploration
- Oxy USA, Inc
- P & A Operation Inc
- Parker & Parsley
- Parsec Resources
- Pearl Energy
- Peoples Energy
- Pennzoil
- Penwell Energy Inc
- Petroleum Research & Consulting Serv
- PetroMax
- Petrotex Inc
- Petsec Resources Inc
- Phillips Petroleum Company
- Pinnacle
- PITCO
- Pogo Producing Company
- Prime Operating Company
- Protechnics
- Pure Resources
- Questar Exploration & Production
- Ramey Petroleum Consultant
- Read & Stevens
- Reef Exploration
- Reliance Operating Co
- Repsol
- Reserve Operating Corp
- Restech Houston Inc
- Rhombus Energy
- Riata Energy
- Ricks Exploration, Inc
- Ridgeway Arizona Oil Corp
- Rimco
- Rio Bravo
- Rio Petroleum
- River Producing Company
- Rocky Mountain Consulting
- Rutherford Oil Corporation
- Sabco Oil & Gas
- Samson Canada Ltd
- Samson Resources
- Santa Fe Energy
- Santrol



Combined Clients Served

- Scana Petroleum
- Schoch & Company
- Seneca Resources
- Shana Petroleum Company
- Shell Oil Company
- Shell Western E&P, Inc
- Sierra Resources, LLC
- SND Energy Company
- Snyder Oil Company
- Southwest Resources
- Spirit Energy
- Star Resources
- Stim Lab
- Stinger
- Strata Production
- Stream Energy
- Strickland Engineering
- Sue-Ann Operating
- Suemaur Exploration
- Tarpon Operating & Dev, LLC
- TDC Energy
- Tetra Technologies
- Texaco
- Texas Independent Exploration
- Texland Petroleum, Inc
- The Redmon Oil Company, Inc.
- The Wiser Oil Company
- Timber Sharp Drilling
- Tom Brown
- Total Minatome
- Traton Engineering
- Tres Management
- Treybig Enterprises Inc
- Triad Energy Corp
- Tri-C Resources
- Twister Gas Services
- Union Gas Operating
- Union Texas Petroleum
- Unit Petroleum Company
- Unocal
- Ventex Oil & Gas, Inc.
- Verdad Oil & Gas Corporation
- Vessels Oil & Gas Company
- V-F Petroleum
- Warren Corporation
- W. B. Osborn Oil & Gas Operations
- Westech Energy Corporation
- Whitting Petroleum Corp.



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