

C&J Energy Services' corporate offices are in Houston, Texas and we have multiple facilities through the United States and Western Canada. Our domestic locations include most all of the active shale plays.

C&J Energy Services is committed to being an industry leader in quality, health, safety and environmental (QHSE) performance. Indeed, everyone at C&J is responsible for QHSE. The health and safety of our employees are critical to our business success, as is our ability to continually improve the quality of our products and services while also protecting people, the environment, and the communities in which we operate.

## SERVICE OFFERINGS

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### FRACTURING

#### Pre-Frac

- Kill studies to determine optimal biocide choice and concentrations
- Complete water analysis to determine optimal chemical loadings for stable fluid system
- Break analysis tests to determine optimal breaker package
- Engineering consultation for optimal fluid system and treatment design
- Log analysis on open hole and cased hole logs
- LateralScience<sup>SM</sup> answer products that leverage common drilling data to produce cost-effective engineered completion designs that optimize completion efficiency
- Pre-Frac meeting with regional manager, regional engineer, and other on-site management to optimize job efficiencies, maintenance, and logistics
- Completion manager services to manage all third-party vendors required for completions to simplify the billing and logistics for clients
- Laboratory services (friction reducer (FR) loop for frac design)

#### Post-Frac

- Customizable KPI review with client for single or multiple wells
- Post job well analysis from engineering team

#### Fluid Systems

- C&J PureStim<sup>TM</sup> Fluid System gives the client the option to pump either a borate or zirconate system
- C&J PureStim<sup>TM</sup> SW Slickwater System gives the client the option to pump fresh water, brine, or produced water
- C&J DeepEtch<sup>TM</sup> Gelled Acid System gives the client the option to pump matrix rate gelled acid jobs and higher rate acid jobs
- C&J has a suite of biocides, surfactants, complex nano-fluids, temporary and permanent clay stabilizers, paraffin inhibitors, and scale inhibitors

#### On Location Services

- Field engineer to collect and observe job data, run FET, DFIT, generate client-requested reports
- Technical operator to manage on location consumables and fluid system integrity to minimize downtime

#### Re-Completion Services

- LateralScience<sup>SM</sup> answer products that leverage common drilling data to produce cost-effective engineered completion designs that optimize completion efficiency
- Re-Con<sup>SM</sup> Frac-less Re-Stimulation offers a cost-effective approach to help maintain or increase production on existing wells.
- High rate acid jobs with ball diversion
- Re-fracs with diverters and proppant
- Frac wash service



## WIRELINE AND PUMPDOWN

### Perforating

- Full range of perforating equipment with addressable switch capability
- Full range of tubing conveyed perforating equipment
- Full range of pipe recovery equipment (freepoint, backoff, all types of cutters)
- Downhole head tension tool
- Mechanical and explosive release tool
- 5,000 psi and 10,000 psi pressure control equipment
- Sour service wireline cables
- Crane services
- Wireline friction/pump rate modeling

### Logging

- Radial cement bond log tools (1 11/16-in. to 4 1/2-in. sizes)
- Electromagnetic thickness and multi-finger (24-60) caliper tools with 3D visualization software
- Compensated and single detector neutron tools
- Combinable logging services for reduced wells runs with service configurations
- Production logging tools (flowmeter, gradiometer, dielectric, pressure, temperature)
- Noise/temperature logging tools
- Secure customer portal system for data delivery

### Acidizing and Pumping Services

- Self-charging tractor trailer mounted pumps
- Wireline pumpdowns
- Pressure and injection testing
- Fleet of 5,000 gallon single and two compartment tankers
- Ability to haul HCL, NEFE, glacial acetic and HF acids
- Diverter jobs
- Clean outs
- Workover rig assists
- Scale squeezes
- Ballout jobs
- Data acquisition on all jobs
- 3-in. iron packages
- Data trailers with integrated OSHA approved eyewash and shower stations
- Toe prep with sand scouring capabilities

### Wellsite Make-Up and Pressure Testing Services

- 20,000 psi pressure test units which are glycol capable
- Full set of hydraulic wrenches
- 5,000 psi, 10,000 psi and 20,000 psi chart recorders
- BOP testing
- Frac tree make-up and testing
- Production tree make-up and testing
- Wireline lubricator testing
- Backside pressure during frac treatments
- Pressure testing flowlines
- Make-up and pressure testing production equipment



## COILED TUBING

- Coiled tubing operating depths up to 23,000 ft. for 1 1/4 in. tubing, up to 21,000 ft. for 1 1/2 in. tubing, up to 20,500 ft. for 1 3/4 in. tubing, up to 23,500 ft. for 2 in. tubing, up to 23,000 ft. for 2 3/8 in. tubing or up to 22,000 ft. for 2 5/8 in. tubing

### Applications

- Plug drill outs
- Fill clean outs
- Tubing conveyed perforating (TCP)
- Memory tool well logging
- E coil logging/drilling (<10,000 ft.)
- Fishing
- Coiled tubing fracturing
- Acid stimulation and wash outs
- Cement through coiled tubing
- High pressure coiled tubing Jobs
- Velocity string installation/retrievals
- Nitrogen jetting
- Sand jetting perforations
- Sand cutting tubulars
- Scale/paraffin removal
- Underbalanced formation drilling
- Sliding sleeve operation
- Pipeline clean outs



## FLUIDS MANAGEMENT

### Fluid Transportation

- GPS equipped, truck and trailer combos that are used to transport waste water as well as treated water
- GPS equipped fleet of specialized tractor/trailers to transport condensate
- Locations strategically located in each of the major basins
- Multiple full service disposal wells for fluid disposal

### Fluid Tanks

- Available for lease, a large fleet of modern 500 barrel frac tanks
- Specialty tanks in various sizes
- Tanks for mud/solids storage
- Trucks/equipment for transportation, cleaning and setting of tanks

### Fluid Specialty Services

- Using custom-designed trailer-mounted units, we deliver fast, efficient blending of workover and completion fluids at the wellsite
- We provide full-service vacuum/kill trucks for wastewater disposal and well-killing operations
- Fluids expertise also extends to constructing and operating both wastewater and brine disposal wells
- Laboratory services (FR Loop for frac design)
- Water treatment for reuse



## RIG SERVICES

- Initial completion of new wells
- Drilling of new wells and/or re-drilling of existing wells
- ESP and rod installations/repairs
- Mechanical tubing and casing repairs
- Recompletion of existing wells
- Swabbing services / fluid removal services
- Lateral drilling and completion
- Plug and abandonment



## SPECIAL SERVICES

### Plug and Abandonment Services

- Complete 'one-stop' P&A service
- Rigs sized to meet individual projects
- On-location management/design
- Location restoration

### Other Special Services

- Fishing tool rental and services
- Excavation and construction
- Wellbore clean out
- Plug setting and retrieval
- Tubing conveyed perforating (TCP)
- Drill pipe and tubing rental
- Pressure and flow control rental
- Pipe and downhole tool retrieval
- Pipeline testing support/equipment (tanks, haul-offs, fluids)
- Blowout preventer (BOP) rentals
- Roustabout services



## DIRECTIONAL SERVICES

### Planning and Consulting

- Well planning software that includes the latest models for more accurate anti-collision and smaller ellipses of uncertainty
- Drilling optimization through BHA selection, fluid dynamics and formation evaluation that will help the operator stay in the zone and drill efficiently

### Guidance Equipment

- Equipment that is rated to reliably perform in temperatures up to 175°C
- Ruggedized components for high shock and vibration
- Data rates three times quicker than previous generation of mud pulse tools

### Conventional Motors

- New fleet of conventional directional motors with varied configurations for today's demanding drilling environments
- Hard rubber elastomers for increased torque and differential
- Full-service repair and maintenance facilities located centrally in each district to service all downhole equipment locally

### Ultra Short Bearing Section (USBS) Motors

- Patented technology that allows for drilling entire horizontal well with one assembly
- Industry-leading torque ratings on all driveline components provide a reliable motor for all drilling conditions
- PDC bearing configurations result in reliable and consistent performance in every environment
- Shortest bit-to-bend length (17 inches) in the industry. Using its unique bearing configuration, our motors drill curves and laterals with offsets far less than the industry standard.



## CEMENTING

### Primary Cementing

- Surface casing
- Intermediate casing
- Drilling liner
- Production casing and liner
- Ultra-low density cement system

### Remedial Cementing

- Squeeze jobs
- Scab liners
- Plug and abandonment

### District Labs

- Cement pilot and field blend testing
  - Thickening time
  - Fluid loss
  - Free water
  - Rheologies
  - Compressive strengths (UCA and destructive method)
- Drilling mud/spacer compatibility
- Water analysis

### CEMPRO - Cement and Wellbore Fluids Hydraulic Simulator

- Downhole job simulation and cement job design

**WE ARE C&J.**

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