



ADVANCED
ENERGY

SURFACE

PRESET SPECIALISTS

INTRODUCTION



Advanced Energy specializes in presetting surface casing. We currently operate 4 custom surface hole rigs; 2 in the Bakken; 2 in the Permian/Delaware plays in Texas/New Mexico. Over 2,100 surface wells and 4.1 million feet drilled efficiently and safely.

Our rigs have higher hook loads capable of drilling surface holes to depths up to **4,500'**.

Our rigs can drill many intermediate strings and brine and shallow disposal wells using the same small package as used for surface drilling, saving you mobilization and daywork costs.

Advanced Energy has over **30 years** of drilling history with a focus on safety and performance. Our company information is available on ISNetworld and PEC Safety. We maintain our equipment to the highest standards.

Please Contact Us
to see how you can save time and money!

Jeff Welch V.P. Operations
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Gary Provins President
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SURFACE DRILLING STATISTICS

THRU 12/31/20*



Wells Drilled:	2,133
Footage Drilled:	4,174,047'
Average Well Depth:	1,957'
2020 Avg. hours per well: (Spud to spud)	36.10
Avg. Move Distance (miles):	15.65
Total Miles Moved:	33,386

* - Rigs 4, 10, 36 and 37 March 2012 to December 31, 2020.

Our rigs and crews are custom built and trained for setting surface casing and holes up to 4500 feet. All rigs set up to run Range 3 Casing saving you both time and money.

WHY PRESET?



- **Lower Costs**
- **Better Cement Curing Time, Better Hole**
 - Presetting gives maximum curing time, insuring long term hole integrity.
 - Eliminate big rig wait time.
- **Eliminate Brine/Oil Based Mud Changeovers**
 - Presetting means your big rig never has to deal with cleaning the rig between fresh water and other fluids. No risk of cross contamination.
- **Improved Big Rig Cycle Time**
 - Removing the surface casing from big rigs improves cycle time for the rest of the hole.
 - High volume drilling programs can reduce number of big rigs lowering overall well costs.
- **Crew Efficiency**
 - When you move, even skid a big rig, crews expend a lot of energy.
 - Add to that picking up pipe, drill surface, cement and nipple up
 - Presetting allows crews to just pick up pipe and drill the intermediate hole giving them time to recoup some of that energy and spend more time on rig maintenance.
- **Fewer Long Term Commitments / Increased Flexibility**



WHY PRESET?



Big Rig

\$50,000 / day
Personnel on site
5 rig hands
1 consultant
1 mud guy
1 directional hand
1 tool pusher
1 solids control
10 total

+ Casing Crew - \$5,000

Lost Circulation Costs
\$50,000/day

Problem Costs
\$50,000 day

\$56,000 / well

47% Savings Before Problem Costs!

Pre Set Rig

\$30,000 turnkey per well
Personnel on site
3 rig hands
1 tool pusher
4 total

No casing crew

Lost Circulation Costs
1st 8 hours covered, thereafter \$575/hour

Problem Costs
turn key / no costs

\$30,000 / well

Lower Costs / Increased
Efficiencies on Volume
Drilling Programs

(600 foot surface hole)



RIG ACCELERATOR CASE SCENARIO



	Without Preset	With Preset
Budgeted Drilling Program Wells	100	100
Average Big Rig Cycle Time	15 days	14 days
Wells per year per big rig	24.33	26.07
Actual Drilling Program Wells drilled	97.32	104.28

The Results:

Drilling program goals achieved in shorter time and at a LOWER COST per well!

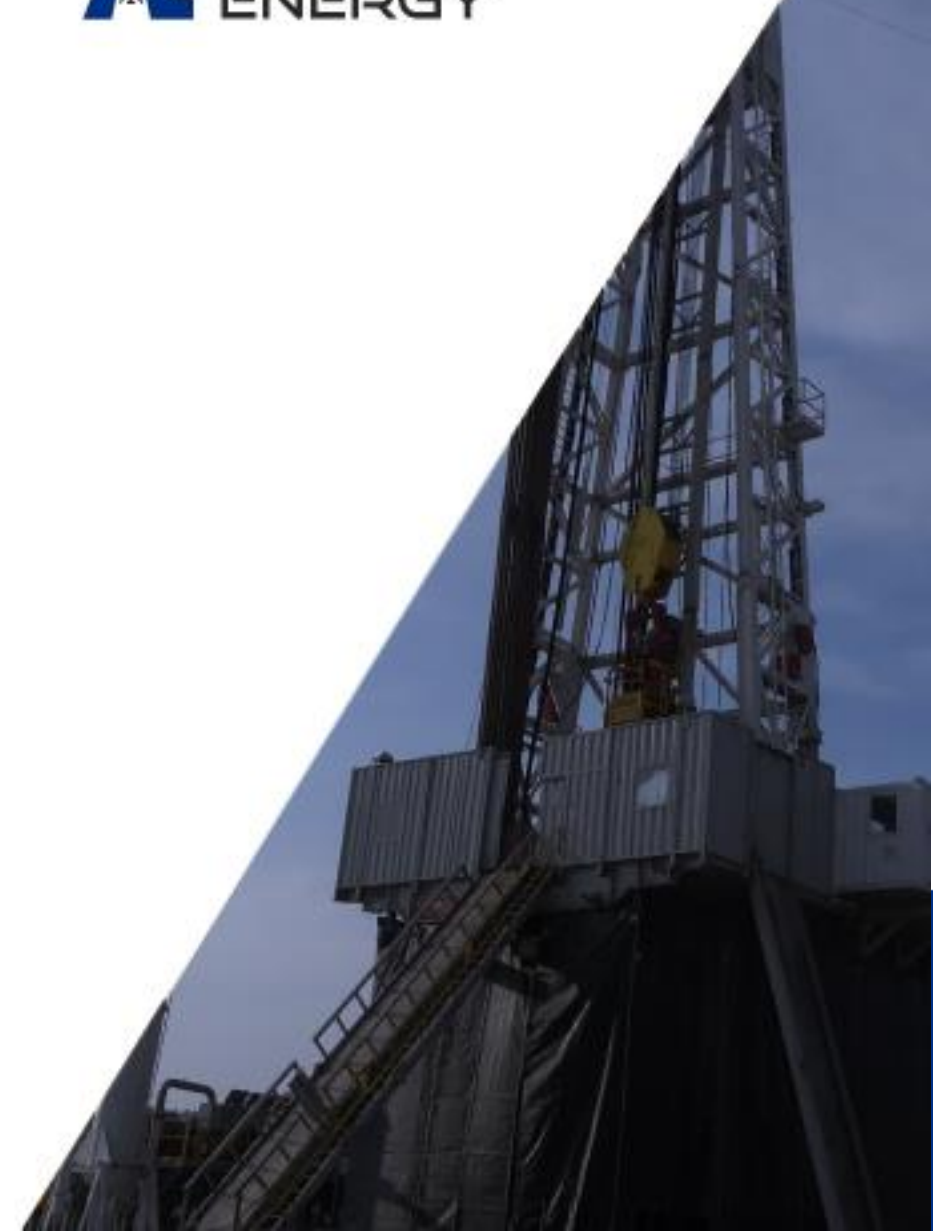
A large, detailed photograph of an oil drilling rig, showing its complex steel structure, ladders, and a red operator's cabin. The rig is set against a cloudy sky.

Reducing Big Rig
Cycle Time by
Only One Day

ADVANCED ENERGY, LLC RESUME



- Advanced Energy was formed through the purchase of some of the assets of CH&P in 2000.
- Company grew from a 2 rig, 3 completion rig company up to a 7 rig, 18 completion unit company over the next 10 years.
- Michigan Antrim Shale play drilling similar to pre-set drilling. Drilled 8,000 Antrim Wells.
- 2012 Company made the strategic decision to focus solely on presetting surface casing in shale plays across the US
- Preset Customers have included Continental Resources, EOG, XTO, Oasis, Diamondback Energy, Crown Quest and Anadarko



THE LEADERSHIP TEAM

ADVANCED
ENERGY

Gary Provins – President

Gary has spent his entire career in the drilling business. He began as controller in xxxx, promoted to President in 2011. Prior to AE he was with CHP Energy since its inception in 1984. Prior to CHP, Gary was a staff accountant by TD Provins Drilling Company. During these periods he was involved in all aspects of the contractual, legal, accounting and IT aspects involved in contract drilling and services.

Jeff Welch – Vice President of Operations

Jeff has been the operations supervisor for the company since its inception. Prior to AE he was the rig supervisor for CHP Energy for the years 1993 to October of 2002 and was also employed by the company since its inception in 1984. Prior to that he also was employed by TD Provins drilling company. He is acutely familiar and an expert in all aspects of drilling and completion operations.

Christopher Diepenhorst – CFO and LLC Manager

Christopher has an extensive background in finance and accounting beginning with his time in public accounting and decades of experience as CFO of a major insurance broker and land services company. He is an investor in AE and also represents the ownership group.





ADVANCED
ENERGY

DRILLING RIG

INVENTORY SPECIFICATIONS



RIG INVENTORIES



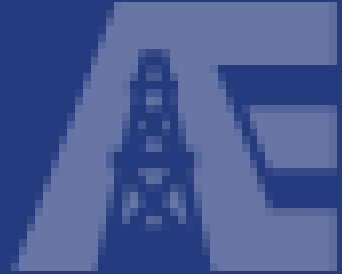
- Drawworks: Walker Neer 250/40
- Power : Detroit Series 60 (500HP)
- Mast: IDS 68' 300,000#
- Pipe Handler: Walker Neer handles Range 3 pipe from 3 1/2" to 13 3/8"
- #1 Pump : Gardner Denver PZ-9 1,000 HP Triplex
Powered by: Caterpillar D-398 engine.
- Working Floor : 5' off Ground
- Top Drive King Model 15PS Dual Drive
- Generator 145 KW Generator, p/b Cat 3306T
- Mud Systems: Operator Provided
- Solids Control Operator Provided Equipment
- Rig Houses 7'6"W x 30'L Doghouse
- Water Tank : 8'Dia x 35'L 310-Barrel Water Tank
- Drill Pipe : 4 1/2" DWB as requested by Operator
- Drill Collars : As requested by Operator
- Other Items Pason w/automatic driller, 125hp Boiler (additional charge)

As Of: 1/1/21

Rig #4

Located: Williston, ND
Depth Rating 6,000'





RIG INVENTORIES

Rig #4
Located: Williston, ND
Depth Rating 6,000'

Rig #4 drilling outside of
Watford City, ND



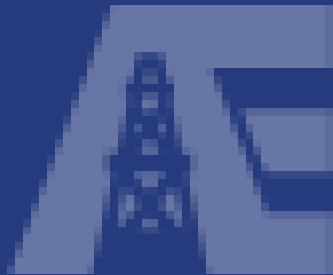
RIG INVENTORIES



- Drawworks: Walker Neer 250/40
- Power : Detroit Series 60 (500HP)
- Mast: 62' Walker Neer 250,000#
- Pipe Handler : Walker Neer handles Range 3 pipe from 3 1/2" to 13 3/8"
- #1 Pump : Emsco MM-700 p/b Cat 379
- Working Floor : 5' off Ground
- Top Drive : King Model 15PS Dual Drive w/Back Brake
- Generator : 125kw Cat
- Mud Systems: Service King 8' x 6' x 45' 300 Barrel w/3 10hp Agitators
- Solids Control: 2 - Ruff Model 436-03 4 Panel Shakers
- Equipment: 2 - Godwin Dri-Prime CD150M Trash Pumps
- Rig Houses : 7'6"W x 30'L Doghouse
- Drill Pipe : 2,500' 4 1/2" 16.60 # DWB
- Drill Collars : 12 - 6 " 3 - 8" - H-90 Connections
- Other Items: Pason w/Automatic Driller, 125HP Boiler (additional charge)

As of: 1/1/21

Rig #10
Located: Williston, ND
Depth Rating 6,000'



RIG INVENTORIES

Rig #10
Located: Williston, ND
Depth Rating 6,000'

Rig #10 Drilling outside of
Ray, ND



RIG INVENTORIES



- Drawworks: Walker Neer 250/40
- Power : Detroit Diesel 8V-92, 550hp
- Mast : Walker Neer 58' 250,000# with 6 Lines
- Pipe Handler : Service King, handles Range 3 pipe from 3 1/2" to 13 3/8"
- #1 Pump : Emsco MM-700 p/b Cat 379
- Working Floor : 5' off Ground
- Top Drive : King Model I5PS Dual Drive (150 ton)
- Generator : 150 KW Cummings
- Mud Systems: Service King 8' x 6' x 45' 300 Barrel
w/3 10hp electric agitators and 4 fluid agitators.
w/35 bbl slug pit
- Solids Control : 2 - Ruff Model 436-03 4 Panel Shakers
- Equipment 2 - Godwin Dri-Prime CD150M Trash Pumps
- Rig Houses : 7'6"W x 30'L Doghouse
- Drill Pipe : 4 1/2" 16.60# Full Hole Connections DWB
- Drill Collars : As Necessary
- Other Items : Pason w/Automatic Driller

As of : 1/1/21

A photograph of an oil rig at night, illuminated by bright lights. The rig's complex steel structure, including the derrick and various platforms, is clearly visible against the dark background.

Rig #36
Located : Midland, TX
Depth Rating 6,000'

RIG INVENTORIES

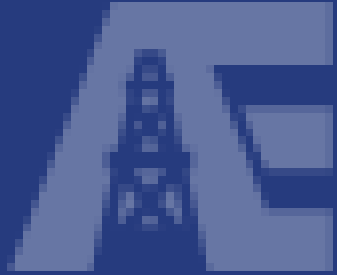


- Drawworks : Service King Model SK-575T
- Power : Detroit Series 60 (500hp)
- Mast : Service King 62', 300,000#
- Pipe Handler : Service King, handles Range 3 pipe from 3 1/2" to 13 3/8"
- #1 Pump : Emsco MM-700 p/b Cat 379
- Working Floor : 5' off Ground
- Top Drive : King Model 15PS Dual Drive (150 ton)
- Generator : 150kw Cummings
- Mud Systems : Moran Iron 8' x 6' x 45' 300 Barrel
w/3 jet Agitators and 3 electric agitators
w/35 bbl slug tank.
- Solids Control : 2 - Fluid Systems Inc. 4 Panel Shakers
- Equipment : 2 - Godwin Dri-Prime CD150M Trash Pumps
- Rig Houses : 7'6"W x 30'L Doghouse
- Drill Pipe : 2,500' 4 1/2" 16.60 dwb
- Drill Collars : 3 - 8", 12 - 6"
- Other Items : Pason w/Automatic Driller

As of : 1/1/21

Rig #37
Located : Midland, TX
Depth Rating 7,500'





RIG INVENTORIES

Rig #37
Located : Midland, TX
Depth Rating 7,500'

Rig #37 drilling outside of
Williston, ND, this rig is now
located in Midland, TX



A photograph of an offshore oil rig at night, illuminated by its own lights against a dark blue sky. The rig's complex metal structure and derrick are visible.

THANK YOU

