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ENHANCE OIL AND GAS WELLS RECOVERY (EOR) WITH SLOT PERFORATION TECHNOLOGY (SPT) PROFESSIONAL SERVICE COMPANY

# MAXXWELL PRODUCTION

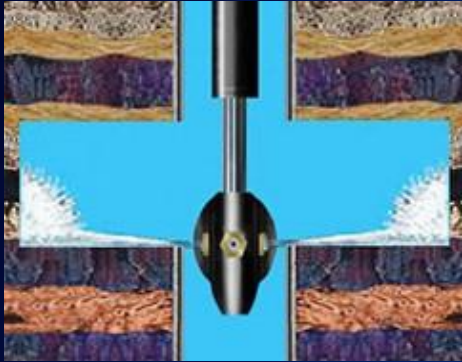
Cutting along the wellbore, with the movement of water-abrasive nozzles, with a constant straight-line speed, regardless of the tubing

- unloading annular stress conditions in the near wellbore zone up to 50 % and more • accordingly increase permeability up-to 15 times •
- accordingly increase porosity in 4-5 times • accordingly increase productive inflow up-to 5-10 times •





# INVEST IN OIL WELLS WITH A PROFIT FOR 20 YEARS

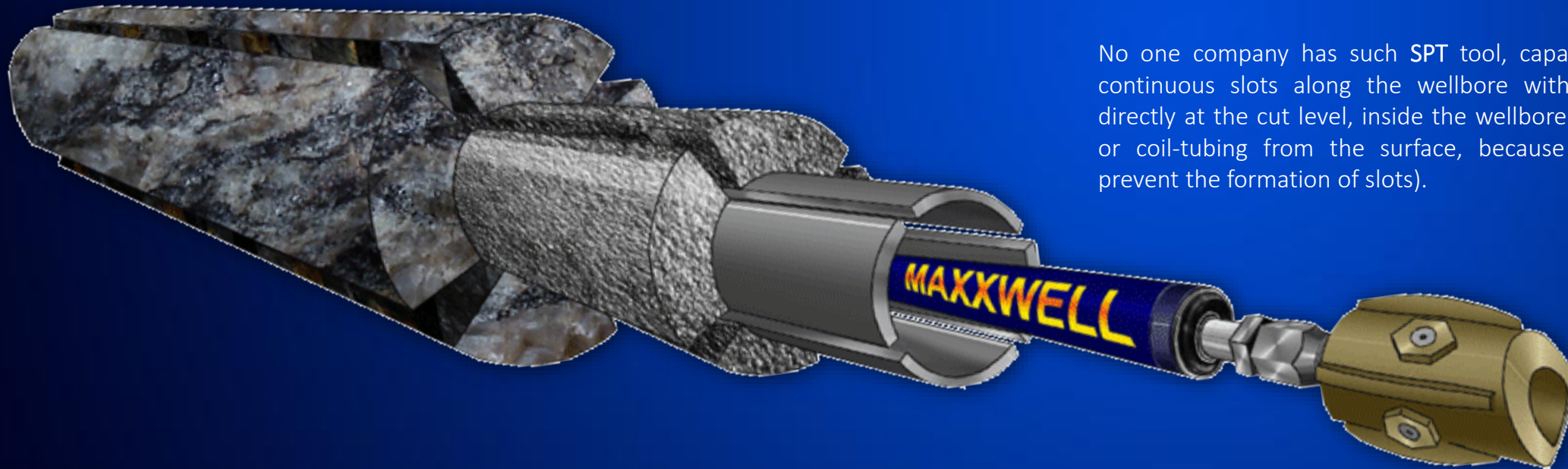


Maxxwell Production offers an investment project for enhance oil/gas wells recovery (EOR) with revolutionary unconventional environmentally friendly/nature safety slot-perforation technology (SPT) in the United States and Canada.

SPT - cutting of continued deep slots along the wellbore (largest cutting up-to 5 ft. depth and opening area up-to 25 ft<sup>2</sup> per linear ft.) - increase in productive oil inflow from 0-1 BPD to 35-50 BPD with lasting effect duration 20 years.

Our team has extensive practical experience since 2011 in successful recompletion/recovery of marginal oil and gas wells with positive results.

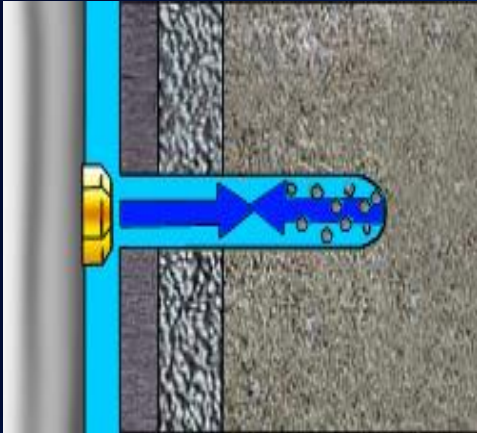
## PATENT US863823



No one company has such SPT tool, capable making longitudinal continuous slots along the wellbore with a water-abrasive jets, directly at the cut level, inside the wellbore (without moving tubing or coil-tubing from the surface, because natural frequency will prevent the formation of slots).

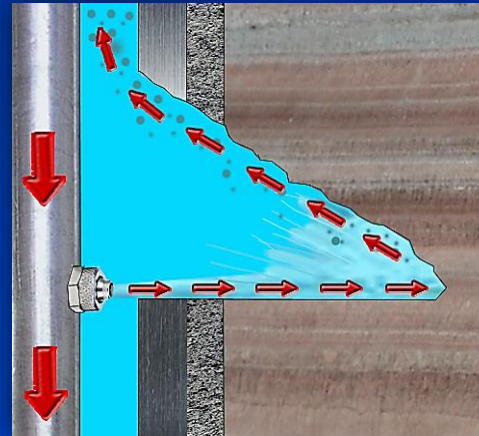
# SLOT PERFORATION TECHNOLOGY

## ABSOLUTELY DIFFERENT FROM OTHER WATER-JET TECHNOLOGIES



All other water-jets methods offer motionless spot perforation only (not a slots), sometimes with abrasive (abrasive jetting), but usually without abrasive (coil-tubing, water-jets, mechanical perforation). Spot perforation give depth less than **1 foot** and blurred cavern (so, they never show a real photo from inside the well).

This is not only due to the lack of an abrasive (abrasive or garnet sand), but also because due point water perforation, the reverse jets from the rocks will always interfere with direct jets and will never give depth.

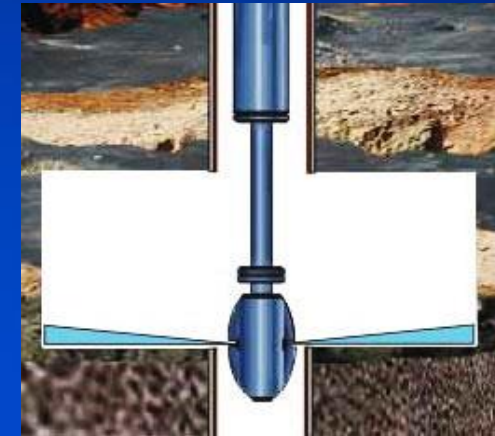


Everything is simple. Depth requires rectilinear movement of abrasive water-jets along the wellbore. Due slot perforation (**SPT**), cutting nozzles make a rectilinear translational movement down, along the wellbore, and regardless of the fixed tubing.

In this case forward water-jets does not intervene with back jets from the rocks, and slurry with abrasive is washed out to the surface with continuous stream of water.

As a result, the cutting gets deeper and deeper (slots is formed up to **3-5 feet** deep). But movement of water-jets must occur at the level of cutting, inside the well.

Slot cutting will not work when the tubing or coil tubing is moving from the surface, because of frequency resonance.

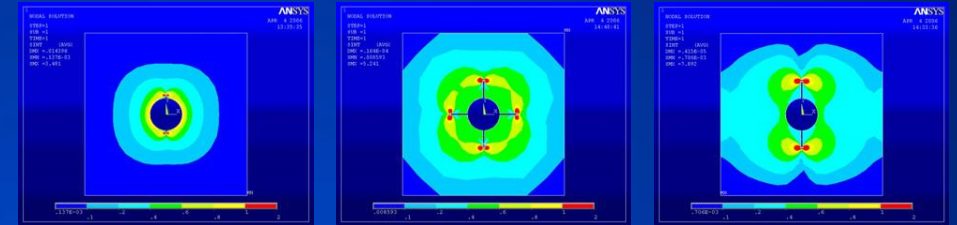




# WHY NEED AN EXTENDED DEEP SLOTS ALONG THE WELLBORE ?

Due drilling any vertical or horizontal well is formed circular tangential stress conditions (each **1000 ft.** near **1000 psi**), which reduces the permeability and downgrade all positive reservoir properties.

It was proved in the laboratory, and later mathematically, that when creating deep longitudinal slots along the wellbore, the circular stress conditions are redistributed from wellbore to the ends of these slots (as slots in the coal industry).



# WHAT HAPPENS AFTER CUTTING DEEP EXTENDED SLOTS ALONG THE WELLBORE ?

- unloading annular stress conditions in the near wellbore zone more than **50 %**
- accordingly increase permeability/porosity up-to **30-50 %**
- accordingly increase productive inflow **dozens of times** with effect duration up-to **25 years**

In December 2014, Halliburton, commissioned by Chevron USA, conducted a next study of **SPT 3-5 ft.** depth results at one of our recompleted oil well in Saskatchewan (Canada).



# BENEFITS FROM EOR SPT

ecologically safe, environmentally friendly (produced water and an abrasive filler)

penetration depth is up-to **5 feet**)

opening area up-to **40 ft<sup>2</sup>** (4 nozzles) per **1** linear foot

cutting speed is **1** linear foot per **60 min** (cased wells) and **1** linear foot per **30 min** (open hole)

simultaneous cutting **2** or **4 slots** along the wellbore

no detonation impact, no casing damage, no cement cracks, no clog-up the formation borders

unloading annular compressive stress conditions in the near wellbore zone up to **50-100 %**

accordingly increase of permeability up to **30-50 %**

accordingly increase the useful inflow up to **5-10 times**

can be used in oil, gas, and injection wells

can be used in newly drilled and low productivity, low debit wells

can be used in vertical and horizontal wells, with tubing and coiled tubing

can be used in any formation (sandstone, carbonates, shale's, thinly interbedded, quicksand, etc.)

can be used near the water reservoirs (impossible to make a hydraulic fracturing)

extract oil up-to **95 %** from the layers with higher productivity

duration of the effect up-to **20 years**





# USE OF FUNDS

Funds will be allocated according to the following operating structure:

- Office expenses
- Acquisition of oil assets
- Wells restoration service
- Maintenance and production of slot's cutting equipment
- Wells operation



- **The office** is focused on maintaining the oil well portfolio, resale of assets after oil well remediation, negotiating contracts, and complying with government regulations and permits.

- **Acquisition of oil assets** is focused to accrue oil field assets with an existing conventional oil wells, on-site infrastructure and required exploitation licenses according to geological and structural requirements.

- **Wells restoration services**, These services are carrying out slot's perforation together with the enhancing oil recovery to maximize well productivity as defined in the patents. The wells restorations are performed by:

Maxxwell Production Company  
Workover rigs service company  
Hydrofracking service company  
Wireline service company

Maxxwell Production prepares work plans, work procedures, and supervises service companies

Service companies provide all necessary equipment and licensed personnel carrying out all field's operations in accordance with state permits and regulations

- **Maxxwell Production** provides maintenance and production of slot's cutting equipment

- **Wells operation** - provides geological and operational field support

# ESTIMATED PROFIT AND RETURN ON INVESTMENTS

- Market cost barrel of oil is \$ 77.36
- First year : Revenue is \$ 3,388,368
- Expenses are \$ 1,120,000
- Profit \$ 1,251,857
- Return on investment 7-8 months
- Next 1 years Profit \$ 2,253,264
- Next 4 years Profit \$ 9,013,056



- The production will depend on many factors like the reservoir geology, the well's conditions, the well's depth, and other factors. Data collected, after implementation of our technology validated that our primary, secondary and tertiary methods of recovery have significantly increased the oil output.
- The minimum recovery configuration where our patents are used consists of 4 producing wells and one injection well interconnected by a common producing layer.
- An average estimation of oil increase for 4 producing wells is 120 barrels per day or 43,800 barrels per year. The minimum indicator of 30 BPD is taken for the calculation.
- The current market cost of oil (WTI) is \$ 77.36 for barrel
- We can assume the cost of the land and three wells is \$ 320,000 and recovery expenses are \$ 800,000. Total expenses the land and the recovery are \$ 1,120,000.
- First year revenue is \$ 3,388,368; • After annual maintenance, service expenses and sales coefficient (30 %) Profit \$ 2,371,857; Profit after expenses for the purchase and recompletion of wells is approximately \$ 1,251,857; • Return Investment 7-8 months ; • Next year Profit \$ 2,253,264.
- Let assume that production declines 5 % per year than total oil production in next 4 years is \$ 9,013,056.
- The field of 100 wells will include 70 producing wells with average production 30 barrels per day and 30 injection wells.
- The 70 producing wells will produce 766,500 barrels of oil per year.
- Estimated revenue for one year is \$ 59,296,440.



# INVESTMENTS SECURITY

- Investor will have Joint ownership of oil field assets acquired by allocated funds.
- Investing in the oil and gas industry has many monetary and tax benefits. Oil investments may be used to hedge portfolios that are heavily weighted in stocks, bonds and mutual funds.
- Ownership of oil field assets, plus ownership of recoverable hydrocarbon reserves and mineral rights. There is no royalty payments to impact the profit.



- There is developed infrastructure: roads, piping, access to local oil farm storages, local refineries. Service contracts with a well owner represents the least risk as the owner's working team and oil wells maintenance equipment are present on site and participate in the operation.
- States provide Investors and oil and gas operators with the significant tax breaks in labor, equipment and operations. Tax breaks for depleted wells are particularly significant, helping to protect the financial investment

# LOW OPERATIONAL RISK

- Enhancing oil wells recovery with slotted perforation and operations have been on-site tested multiple times.
- All required on-site operations for wells recovery is carried out by an experienced Service companies: Workover Rig Company, Hydro Fracking Company, and Wireline company, with their own equipment, operational personnel and working permits according to service agreements.
- Maxwell Production will provide required specifications, underground perforators and oversee operational control.
- Maxwell Production will provide instructions and maintenance manuals for using slots cutting equipment

## SUMMARY

- Enhanced oil wells recovery (EOR) is a critical component to maximizing energy production in America
- We offer a EOR with slot perforation technology (SPT).
- The recovery used EOR SPT is fundamentally different from that used in the industry. First, we cut slots in the near-wellbore zones of the oil-producing layers to relieve compressive stresses, and then we perform enhanced oil recovery operations to recover oil from the closed pores located in the formation.
- The slots provide channels for easy flow of oil from the formation into wells and direct the fracturing propagation to open closed pores containing oil.
- Thus, EOR SPT can unlock wells and recover oil from deposits up-to **95 %** unlike traditional technologies, especially in wells, where tangential compressive forces significantly affect permeability and block oil flow.
- We are focused on commercializing EOR SPT which maximizes production from depleted and abandoned oil wells. In the oil industry, all the necessary technical conditions and equipment have been created for the industrial implementation of the proposed enhanced oil recovery technology EOR SPT can be used to restore depleted wells.



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# MAXXWELL PRODUCTION

CONTINUOUS MOVING ABRASIVE WATER-JETS SLOT PERFORATION TECHNOLOGY FOR VERTICAL AND HORIZONTAL WELLS

