



BUSINESS PLAN

RECONSTRUCTION OF LOW-PRODUCTIVE OIL AND GAS WELLS

BY SLOT-PERFORATION TECHNOLOGY

- ecologically safe and environmentally friendly
- increase the productive inflow up to 10 times and more.
- unloading the near wellbore zone up to 60 %
- increase the permeability/porosity up to 50 %
- extraction of an additional 40% unrecoverable hydrocarbons
- large drainage zone and hydrodynamic connection
- no detonation impact, no casing damage, no cement cracks
- duration of effect 10-15 years

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BUSINESS SUMMARY

Slot-perforation technology (SPT) - cutting of continued deep slots along the wellbore. Cutting is done by special SPT tool/equipment through casing, cement into the productive layer to a depth 3 - 5 ft. In this case, the circular stress conditions are redistributed to the ends of the slots, unloading the near wellbore zone, increasing permeability, positive reservoir properties, and accordingly the productive inflow. Our technology enables to Recovery up to 95% of oil or gas from reservoirs with greater productivity and with a duration of more than 15 years. The technology also works well in newly drilled wells.

INTRODUCTION

In the United States over 420,000 stripper/marginal oil and gas wells most of which produce 0-5 barrels a day. This nearly one million barrels of oil per day or 20% of U.S. production. Around 180,000 marginal wells were shut and abandoned over the past 10 years, and cost US \$ 3.8 billion in lost oil revenues. But many of them could still be restored and increased productive inflow.

Modern recovery technologies allow to extract around 50% of all hydrocarbon reserves, the rest remain in the ground. Thus, it is estimated that many billions of barrels of oil are still expected to recover. This staggering amount of oil remaining could be one of America's best hopes for improved energy security and prosperity.

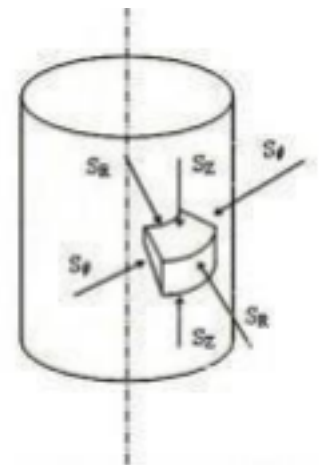
Oil and gas extraction from stripper wells have additional financial advantages and are less risky in contrast to drilling new wells. Exploration, drilling, equipment, and the development of new wells cost tens/hundreds of times more expensive and many of them are empty. Strippers already exist, have a proven history of production, production of equipment and vehicles in a place known as infrastructure, it would be great to use these opportunities now, spending less investment money.

SLOT-PERFORATION TECHNOLOGY

Along with many possible reasons for the decline in well debit, there is an initial factor, which reduces the productive flow already on the drilling stage.

When drilling any well under the action of hydrostatic, mining, and high overburden pressures around the wellbore are forms circular stress conditions, reaching **1790** psi already at a depth of **1000'**, and **5370** psi at a depth of **3000'**. These stresses reduce permeability and accordingly inhibit productive influx.

Mathematically and in laboratories was found that the creation of deep longitudinal



continued slots along the wellbore redistributes the circular stresses conditions from the wellbore to the ends of this slots, thereby unloading near wellbore zone up to **60%**, accordingly increasing the permeability up to **50%**, and accordingly increasing the productive inflow up to **10** times and more.

Special underground hydro-slotting perforation equipment protected by patent **US8863823**, granted by United States Patent and Trademark Office October 21, 2014, is used to create/cut deep extended longitudinal slots.
<https://patents.google.com/patent/US8863823>

FINANCIAL SUMMARY

The project is to receive an investment of **\$10,2 million** within 2 years and make a profit within 15-20 years. To reduce the cost of the project, a company-operator will be registered in the US state that will be of interest to us. Time will need to be allocated for this.

In the presented forecast, the beginning of oil growth is expected in the state of North Dakota, Texas and Kansas.

The product of the project will be crude oil, which will be sold on the US market. After commissioning of all wells and their reaching the design capacity, the project will produce slightly more than 394,200 barrels (minimum) of crude oil per year.

The cost of the Main Equipment

SPT Tool/equipment (Patent US 8863823) manufacturing: 2 sets x \$ 57,000.00 = **\$ 114,000.00**

In the First Year, There is a plan for the recompletion of 25 wells (20 Oil Wells and 5 Injection wells): **The preliminary periods** 3 months, during which:

1. Registration of the company- operator

Registration Cost Breakdown	Cost (\$)
Blanket Surety Bond (25 wells) and Permit Processing for receive an Oil and Gas Application for Permit	200,660.00
Lawyer verification/documentation	20,000.00
TOTAL	220,660.00

2. Selection and geological/geophysical analysis of prospective oil wells (25 wells)

Selection and Analysis Cost Breakdown	Cost (\$)
Search/selecting potential for EOR wells	20,000.00

Geological/geophysical analysis, program	87,500.00
TOTAL	107,500.00

3. **Low-productive 0-4 BPD oil well** - 25 x \$ 50,000.00 = \$ 1,250,000.00

4. To reduce cash costs for the service of third companies, it is supposed to buy its own pump

Equipment Cost Breakdown	Cost (\$)
Consumable and spare parts for SPT tool/equipment (2 completed sets)	287,500.00
Preparation, installation, testing	125,000.00
Pump	520,000.00
TOTAL	932,500.00.

5. Recompletion Wells.

Based on the calculations of costs per well (pages 8-9, Investment and Profit of One Well) the cost of recompleting of 25 wells will be an estimated cost of **\$ 3,066,250.00**. To increase the flow of oil in the wells, we make 1 injection well for 4 oil wells. Business and travel expenses - **\$ 135,000.00**

6. Total expenses:

Total expenses	Cost (\$)
SPT Tool	114,000.00
Registration of the company- operator, bond and Lawyer	220,660.00
Selection and geological/geophysical analysis	107,500.00
Low-productive oil wells purchase	1,250,000.00
Equipment (including Pump)	932,500.00
Recompletion Wells	3,066,250.00
Business and Travel expenses	135,000.00
TOTAL	5,825,910.00

7. Final of the first year

- As of today, the cost of 1 barrel is \$ 77.69.

Based on this, the payback of the first part of the investment will be around 6 - 10 months and will depend on the amount of incoming oil and the price of oil.

- According to statistics, a correctly selected low-productivity oil well with debit 0-1 BPD after slot perforation begins to produce an average approximately 30 BPD

- **Estimated Gross from first 20 oil wells in first years = \$ 17,014,110.00** ($77.69 \times 30 \times 365 \times 20$)

- Since injection wells do not generate profit, but only increase pressure in adjacent oil wells, profit is calculated for only 20 wells.

- About 30% from the Profit is spent on maintenance and service:

\$ 17,014,110 -30% (\$ 5,104,233) = **\$ 11,909,877.00**

- Total payroll and operating cost per year : **\$ 1,270,764.00**

Investments for the First Year: \$5,825,910.00

Total Estimated Profit after One Years of wells operation: \$ 10,639,113.00

In the Second Year, There will be a plan for recompletion of 20 wells (16 Wells and 4 Injections Wells)

1. The preliminary periods 2 months, during which:

1. Obtaining a permit for the development of new wells

Permit Cost Breakdown	Cost (\$)
Blanket Surety Bond	100,000.00
Lawyer verification/documentation	20,000.00
TOTAL	120,000.00

2. Selection and geological/geophysical analysis of prospective oil wells (20 wells)

Selection and Analysis Cost Breakdown	Cost (\$)
Search/selecting potential for EOR wells	20,000.00
Geological/geophysical analysis, program	70,000.00
TOTAL	90,000.00

3. Low-productive 0-4 BPD oil well - 20 * \$ 50,000.00 = \$ 1,000,000.00

4. Preparation of equipment for work based on geological/geophysical analysis and manufacturing of

additional consumable parts required for work

Preparation Cost Breakdown	Cost (\$)
Repair of FTS Equipment – 2 sets	20,000.00
SPT Tool/equipment manufacturing - 2 sets	114,000.00
Consumable and spare parts for SPT tool/equipment (6 completed sets)	287,500.00
Preparation, installation, testing	125,000.00
TOTAL	546,500.00

5. Recompletion Wells.

Based on the calculations of third party cost and Wellsite Supervision/Engineering per well (page 8, Investment and profit of One Well) plus cost of manufacturing of additional sets of FTS Equipment; the cost of recompletion for 20 wells is an estimated cost of **\$ 2,453,000.00**: $(26,500.00 + 96,150.00) * 20$

6. Total expenses:

Total expenses	Cost (\$)
Bond, Lawyer	120,000.00
Selection and geological/geophysical analysis	90,000.00
Low-productive oil wells purchase	1,000,000.00
Equipment	546,500.00
Recompletion Wells	2,453,000.00
Business and travel expenses	135,000.00
TOTAL	4,344,500.00

3. Final of the Second year

- As of today, the cost of 1 barrel is \$ 77.69.

Based on this, the payback of the first part of the investment will be around 6 - 10 months (Tab 2) and will depend on the amount of incoming oil and the price of oil.

- According to statistics, a correctly selected low-productivity oil well with debit 0-1 BPD after slot perforation begins to produce an average approximately 30 BPD
- Estimated Gross from first 16 wells in first years = **\$ 13,611,288.00**
- Since injection wells do not generate profit, but only increase pressure in adjacent oil wells, profit is calculated for only 16 wells.

- About 30% from the Gross is spent on maintenance and service:

\$ 13,611,288.00 -30% (\$ 4,083,386.00) = \$ 9,527,901.60

Total payroll and operating cost per year : \$ 1,270,764.00

Investments for the Second Year: \$ 4,344,500.00

Total Estimated Profit after One Years wells operated: \$ 8,257,137.60

SUMMARY:

Total investment for 2 Years: \$ 5,825,910 + \$ 4,344,500.00 = 10,170,410.00

Total Estimated Gross for 5 Years: \$ 139,515,702.00 - 5% or 7% (natural losses) (\$ 9,766,099.00) = 129,749,603.00

Total Own Wells: 45 (36 Oil Wells and 9 Injectors Wells)

Estimated profits are calculated based on 30 barrels per day from each well. This is an average number. The number of barrels in each well can vary from 20 to 50 and more.

According to statistics, a correctly selected low-productivity oil well with debit 0-1 bbl./day after slot-perforation begins to produce an average 30 bbl./day, the same low-productivity gas well shows results in 150 MCF/day and more.

With buying own oil well about 30% from the profit is spent on maintenance and service.

Today's crude oil price - \$ 77.69

In the first year is the return on investment, so profit is minimal, subsequently, this amount is added to the net profit received in the second year and so on.

One of the keys to success and making a profit is the correct geological and geophysics of a productive oil well and the calculation of residual oil, gas and water reserves. Using our own calculation programs, our highly specialists select promising oil wells for slot-perforation technology with great precision.

Investment and Profit of One Well

Well Purchase:

1	Low-productive 0-1 bbl. oil well purchase	\$ 50,000 - \$ 80,000
2	Layer verification/documentation	\$10,000
3	Oil and gas conservation division bond	\$20,000
	TOTAL	\$80,000 -100,000

SPT ORGANIZER PARTY:

Well Analysis		Cost (\$)
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1	Geological/geophysical analysis, program	3,500.00
Well Recovery		
1	Consumable and spare parts for SPT tool/equipment (2 completed sets)	11,500.00
2	Preparation, installation, testing	5,000.00
3	Organization and recovery process supervision	5,000.00
4	Business and travel expenses	10,000.00
TOTAL		35,000.00

Wellsite Supervision/Engineering:

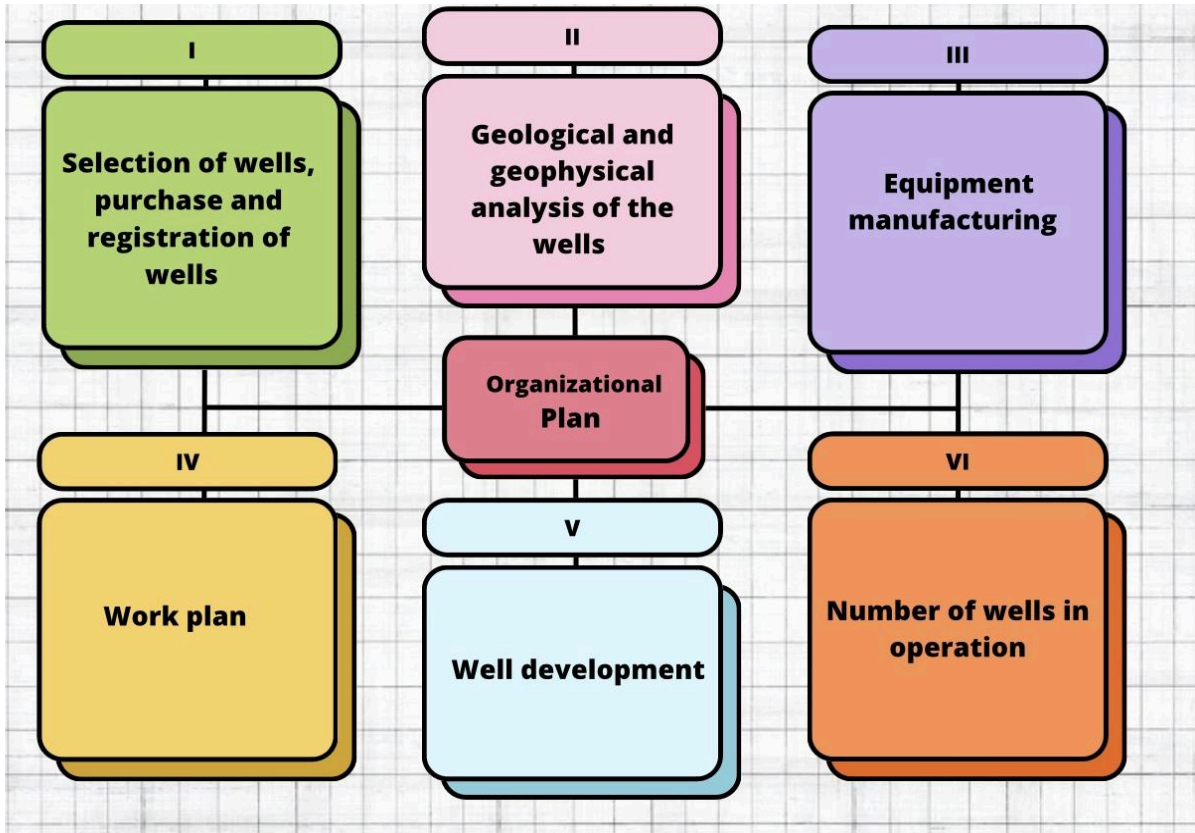
1	Wellsite preparation and maintenance	3,000.00
2	Surface equipment and supplies	16,000.00
3	Wellsite Supervisor (10 days)	5,000.00
4	Wellsite Safety Manager (10 days)	2,500.00
TOTAL		26,500.00

THIRD PARTIES EXPENSES:

Surface services		
1	Workover service (rig + team/staff)	34,800.00
2	Pomp service/Fracking service	32,650.00
3	Trucking and hauling services	2,100.00
4	Water, sand, diesel, electricity	15,500.00
5	Wireline Logging service	5,700.00
6	Acid Treatment Service	3,600.00
7	Downhole Pump and Accessories Service	1,800.00
TOTAL		96,150.00

INVESTMENT with WELL PURCHASE – \$ 239,700 - \$ 259,700

Organizational Plan



The key fixed costs of the project are presented in the table below:

Personnel Plan

 Personnel Plan		
Geophysicist	\$ 42.00 per hour	\$ 8,064.00
Chemical Engineer	\$ 40.50 per hour	\$ 7,776.00
Accountant	\$ 25.50 per hour	\$ 4,896
Supervisor	\$40.50 per hour	\$ 7,776.00
Slot cutting specialist	\$54.00 per hour	\$ 9,984.00 per month. 2 x \$ 9,984.00 = 19,968

Personnel Plan		
Manager	\$ 30.00 per hour	\$ 5,760
Director	\$ 95.00 per hour	\$ 18,240.00 per month
Cleaning	\$18.00 per hour	\$ 1,152 per month
Engineer	\$ 41.23 per hour	\$ 7,916.00
Technician	\$ 36.50 per hour	\$ 7,008.00 x 2 = \$ 14,016.00

The total payroll fund of the project per month - **\$ 95,564.00**

Total payroll per year: **\$ 1,146,768.00**

TAX Deductions

The project initiator will pay the following types of taxes and special payments during the implementation of the project:

- 5 % rate is applied to the gross value at the well of oil produced (in North Dakota) - State rate
- Federal tax rate

OPERATING COSTS (FIXED AND VARIABLE)

Project fixed costs are project costs that do not depend on changes in the volume of oil produced and the number of wells in operation. The key fixed costs of the project are presented in the table below:

Staff salary - \$ 95,564.00 per month

Office rent - \$ 2,500.00 per month

Insurance - \$ 40,000.00 - \$ 3,333.00 per month

Auto Insurance - \$ 400.00 per month (Sprinter + auto)

Advertising - \$ 300.00 per month

Utility payments + internet - \$ 1000.00 per month

Hospitality expenses and presentations expenses - \$ 1000.00

Other general expenses - \$ 500.00

Well electricity - \$ 1300

Total: \$105,897.00 per month (\$ 95,564.00 - salary, \$ 10,333.00 office and other expenses)

Total per year: \$ 1,270,764.00

Project Fixed Cost Structure

About 82% of all fixed costs of the project will be spent on salaries of administrative and management personnel,

About 2.7% of the total fixed costs of the project will be rental payments

About 1.8% of the total fixed costs of the project will be on entertainment expenses About 4.1% of the total fixed costs of the project will be utility payments

About 9.4% of the total fixed costs of the project will be spent on other cost items

Variable Project Costs are the costs of raw materials, goods, materials and services necessary for the operation of wells and ensuring oil production at the field.

Gasoline - \$ 1000.00

Diesel fuel - \$ 1000.00

Total: \$ 2000.00

RISKS DEPENDENCE ON THE NUMBER OF WELLS

On average, risks are within **10 %-15 %** which is even less than when drilling new wells.

Recovery of low-productive oil and gas wells with slot-perforation technology remains a fairly profitable investment. Even if oil prices decrease to \$ 10 per barrel the annual percentage of profit after 3-year's payback will be 32.5 % which in any case is 10-times higher than average percentage of profit in the Banks.

COMPETITORS

As a result of marketing Internet research, it can be concluded that there is no competition in the restoration of low productive oil and gas wells using slot-perforation technology on the American continent (United States and Canada).

Other well development methods are used, such as gun/cumulative perforation, hydraulic fracturing, side drilling, radial drilling, coiled tubing jet perforation, abrasive jetting, with subsequent stimulation as acoustic, acid, air, chemical, gas, pulse, resonance, shock, steam, stress/overstress, thermal/temperature, vibration.

None of the above technologies and methods do not create extended deep longitudinal slots and accordingly does not unload the near well zone and does not increase the permeability in this zone.

SUMMARY

The field of 45 wells will include 36 producing wells with average production 30 barrels (minimum) per day and 9 injection wells.

The 36 producing wells will produce 394,200 barrels of oil per year. Average annual selling prices of crude oil produced under the project : 1 BPD - \$ 77.69

Estimated revenue for one year is \$ 30,625,398.00

As can be seen from the above calculations, investing in the restoration of low-productivity oil wells with the subsequent development of slot-perforation technology is a profitable investment with a payback of 9-12 months and an annual profit of 100% with a **profit period of about 15 years.**

The business plan is based on the purchase of wells. It is also possible to purchase wells on lease. In this case, the amount of investment is reduced and the cost of lawyer services is also reduced, however, a certain percentage must be paid to the owner of the wells that are leased.