

WORLD OIL GROUP, INC.

THE WOGI TREATMENT ABSTRACT

The WOGI Treatment was developed to treat oil wells, flow lines, pipelines, storage tanks, transport tankers including oil carrying tanker ships. All of those areas in the oil industry need The WOGI Treatment, especially if the wells have not been treated.

To ensure that we better serve the needs of the oil industry, we always advise that the actual oil wells are the first to be treated. Thereafter, all parts of the system that the product treated oil flows through will receive treatment, from the well, through the flow lines and interconnecting pipe work to the storage tanks. The export pipelines or exporting road and rail tankers through to the tank farms or ships all benefit from The WOGI Treatment. As soon as all those elements have been treated from the initial well treatment the system will be clean. The entire system will remain clean and free of paraffin wax and asphaltenes while The WOGI Treatment and maintenance are being utilized continuously and consistently.

TYPES OF PARAFFIN TREATED BY THE WOGI TREATMENT

The WOGI Treatment is effective against the following types of paraffin accumulations:

- **Normal Paraffins - Soft and easy compounds**
- **Cycloparaffin (Naphthalene) - Commonly Heavy Mexican and Venezuelan - This paraffin is rich in asphalt**
- **Isoparaffin - Compounds of different chemical and paraffin properties**
- **Aromatic - One of the two main types of Hydrocarbon Compounds (contains one or more Benzene Rings). This paraffin is the most difficult to decompose and it presents greater hazards to humans and the environment**

ENVIRONMENTALLY SAFE

All clean-up operations in the oil industry are extremely hazardous. **The WOGI Treatment** is both an environmentally safe and ecologically sound solution. The treatment is both non-toxic and non-flammable.

The WOGI Treatment features the exclusive use of **WOGI PARAFFIN REMEDIATION SOLUTION** and **WOGI OIL FIELD SOLUTION**, which is biodegradable so ground spillage can be safely ignored. For this reason,

WOGI Remediation is the preferred choice for clean-up operations as a result of oil spills, both on land and sea.

The disastrous, harmful and costly effects that result from oil spills can be significantly reduced by using **WOGI Remediation** in oil spill clean-up operations.

THE WOGI TREATMENT BREAKS THE HYDROCARBON CHAIN

The WOGI Pre-Treatment Analysis – To make a proper diagnosis and treatment design, a coordinated logistics and analysis is completed before the treatment. This includes:

- **A production, pressure and flow regime history analysis**
- **A current well environment and treatment history analysis**
- **An existing chemical/ paraffin mitigation analysis**

From this analysis we develop:

- **A composite data analysis and interpretation**
- **A modeling and performance forecast**

The WOGI Treatment -- After the initial analysis and recommendations, WOGI will schedule its mobile office and response team to conduct the single well treatment.

THE WOGI TREATMENT GUIDELINES

In order to achieve successful results, the paraffin and the mother crude must ALWAYS be tested. Due to the varying concentrations of paraffin and asphaltenes in any particular formation, it is especially important to note that all well samples vary.

This test will allow WOGI to properly determine which product, **WOGI PARAFFIN REMEDIATION SOLUTION** or **WOGI OIL FIELD SOLUTION**, and what chemical blend would be best suited for that particular well.

The WOGI Treatment Well Survey form will also be furnished by WOGI to determine existing conditions in the well. The completed The WOGI Treatment Well Survey form must be mailed to World Oil Group, Inc.

Samples of paraffin and mother crude oil must be sent in approved containers available from WOGI, Inc. via DHL or other approved carrier

Upon receipt of completed The WOGI Treatment Well Survey form and samples of paraffin and mother crude oil, WOGI will schedule its mobile office and response team to conduct a single well treatment.

Additional wells can be treated by WOGI on a contract basis, or WOGI will provide technical support and training for current maintenance contractors with the use of **WOGI PARAFFIN REMEDIATION SOLUTION** and **WOGI OIL FIELD SOLUTION**.

MAINTANENCE AFTER THE IN ITIAL WOGI TREATMENT

Consistency is the key element as there is no point to conduct a well treatment and leaving it to dissipate out of the oil over several months. It is important to maintain a treatment regime that maintains control. Wells should be treated every 12 weeks at a minimum to maintain the pool free from precipitation of wax or build up of asphaltic crystals. The casings and well system can be kept free from build up consistently with implementation of our maintenance program (treatment every 12 weeks). This will keep walls, pumping equipment, and casings wax deposition free and it will never return ... **NEVER!**

There occasionally will be wells that may require treatment more often than every 12 weeks due to a higher percentage of paraffin in the oil. When the operator can see that the amount of oil per day has decreased by 1 or 2 barrels per day then the wells should be treated again to prevent wax build up and to return the production to the maximum attainable volume.

The WOGI Treatment removes all the paraffin and asphaltenes and puts them back into the oil phase of the crude oil. They will remain in the oil phase and will never precipitate out of the oil again.

By treating wells with The WOGI Treatment, the wells will then not require being hot water washed or hot oil washed every 3 to 4 weeks to dissolve the paraffin wax from the walls, from pumping equipment, from the casing and from clogged tubing and perforations. This hot washing operation melts the waxes and drops them back down the well.

After paraffin testing, treatment and analysis, WOGI will determine the best maintenance method to follow and make specific recommendations at that time.