

# Case Study - Coastal Energy Thailand drilling rig - Gulf of Thailand

## *Airborne Tea Tree Oil Used for Treatment of Air Quality Aboard a Drilling Rig*

Coastal Energy Company is an international exploration & production company with principal assets in Thailand and Malaysia and operates a number of drilling rigs in the waters around Southeast Asia.

**Symptoms** - During 2013 managers experienced a high rate of respiratory illnesses on offshore drilling rigs. Worker downtime and reduced productivity were costly and unsafe.



**The solution** - IAQ cleaned the systems and deployed tea tree oil gel dispensers in all AHU's onboard the rigs. GermXit™ has infused tea tree oil in a water based gel that is designed to evaporate<sup>[1]</sup>. Being water based, as air flows over the gel, vapor containing the tea tree oil rises from the dispenser and is circulated throughout interior areas of the rig.

New test cultures taken 10 days after treatment with GermXit™ airborne tea tree and then again 30 days later show levels dropping to near zero.

**"Most important we found that the number of illnesses dropped around 80%. Further the nasty smell that dominated disappeared."** - Mr. Martijn le Duc, MOPU Superintendent<sup>[2]</sup>

IAQ trained onboard maintenance people to check and replenish the GermXit™ gel dispensers in the air handling system. Regular checks are carried out to ensure the levels of contaminants remains low.

**"We had IAQ out again to do a 2nd rig and again we could see an immediate effect."** - Mr. Martijn le Duc<sup>[2]</sup>

*The photo at right shows actual **before and after** test cultures showing the near elimination of fungus, mold and bacteria in a typical system newly protected by GermXit™. (File photo, may not be of test vials from this case study.)*

To learn more about GermXit™ tea tree oil gel and how it will completely change the way you think about indoor air quality in your building or your home - please call us at numbers below or email to [contact.us@germxit.com](mailto:contact.us@germxit.com)



## Global use-

GermXit™ is now in use onboard a number of FSO ships and almost 100 oil and gas rigs and platforms around the globe. Additionally GermXit™ is used in hundreds of homes, factories, hospitals, hotels, shopping centers and schools throughout Asia, Africa and the Middle East.

## About GermXit™ and Tea Tree Oil-

IAQ Technologies is a commercial ventilation cleaning service with offices in Melbourne, Australia and Bangkok Thailand. Regular cleaning of ducts and air handling systems is an essential maintenance item in any commercial building but IAQ wanted to go one step further. An effective air treatment system was needed to finish the job and keep working between cleanings so, GermXit™ was developed. Tea tree oil was chosen because of its proven effectiveness, it is all natural and it is renewable.

IAQ chemists infused tea tree oil in a water based gel designed to evaporate. As water in the gel evaporates; the tea tree oil itself is carried in an airborne vapor that permeates the entire area where it is deployed. Either forced air (fans, HVAC) or simple air movement circulates it. Within hours the tea tree oil is doing its job controlling germs, yeasts, molds, fungi and bacteria - which in turn controls odors, insects and other pests. There is even strong evidence showing tea tree oil controls a number of viruses. As long as GermXit™ is maintained in an area, undesirable organisms are controlled. The tea tree oil is always in the environment.

### What is Tea Tree Oil?

*By definition it is a broad spectrum antimicrobial, natural antiseptic, bactericidal anti viral, essential oil. Tea Tree Oil is effective against mold/mildew/bacteria/pollen/fungus/yeast.*

### What is Melaleuca Alternifolia?

*It is the Latin name for the tree that produces the essential tea tree oil from its leaves.*

### How does Tea Tree Oil work?

*It destroys the spores membrane - the spore (mold/mildew/bacteria/pollen/ fungus/yeast, becomes inert.*

United States National Institute of Health - [nih.gov](http://nih.gov)

- [www.ncbi.nlm.nih.gov/pubmed/10735256](http://www.ncbi.nlm.nih.gov/pubmed/10735256) (What it does)
- [www.ncbi.nlm.nih.gov/pubmed/16854063](http://www.ncbi.nlm.nih.gov/pubmed/16854063) (How it does it)
- [www.ncbi.nlm.nih.gov/pubmed/10399193](http://www.ncbi.nlm.nih.gov/pubmed/10399193) (What it is effective against)
- [www.ncbi.nlm.nih.gov/pubmed/9791953](http://www.ncbi.nlm.nih.gov/pubmed/9791953) (What it is effective against-expanded)

More information -

<http://www.teatree.org.au> (educational)

<http://www.ncbi.nlm.nih.gov/pubmed?term=tea%20tree%20oil> (for 446 labs/white papers)

[Testimonial letter](#)

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