



### CJC™ Application Study

Application Study  
written by:

Palle Maschoreck  
C.C.JENSEN A/S  
Denmark

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#### CUSTOMER

**ZEN Petroleum Ltd, Ghana**, supplier of diesel to Tarkwa Gold Mine.

#### SYSTEM

**System:** 60,000 L receiving tank  
**Transfer into:** 50,000 L day tank  
**Oil type:** Diesel oil  
**Daily consumption:** 50,000 L

#### PROBLEM

The incoming diesel was very dirty – with an ISO code 23/20/19, plus existing sludge/dirt in old tanks. Blocks onboard fuel filters and causes high injector consumption.

#### SOLUTION

A CJC™ Fine Filter HW 427/108 with CJC™ Oil Contamination Monitor, OCM15 was installed with CJC™ Filter Insert F. Dirt holding capacity: Minimum 64 kg dirt and 32 liters of water.

The CJC™ Oil Filter kidney loops the receiving tank and transfers diesel to the daytank.

#### BENEFITS

After filtration, the diesel is 11 times cleaner than at arrival. Incoming diesel has an ISO cleanliness level of 23/20/19 – outgoing diesel after filtration is improved to an

**ISO cleanliness level of  
12/10/5**

First insert change confirmed that weight of used inserts exceeds 10 kilos each with a dirt holding capacity of more than 6 kg dirt / filter insert.

The end user has more than tripled lifetime of onboard fuel filters.

ZEN Petroleum has since installed CJC™ Oil Filters on four other sites and all new ZEN fuel contracts are delivered with a CJC™ Oil Filter.

Furthermore, the end user has installed CJC™ Oil Filters on their crusher and mills.



Tarkwa Gold Mine, Ghana

CJC™ Filter Insert change carried out on the mine site

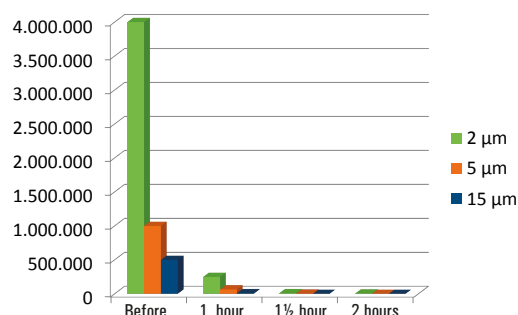
#### RESULT



CJC™ Oil Contamination Monitor, OCM15 monitoring the contamination level of the diesel. Incoming diesel was analyzed to 23/20/9 and after very short filtration period the ISO code was reduced to a very low level of 12/10/5

#### NUMBER OF PARTICLES

> 2 / 5 / 15 µm, per 100 ml



#### RESULT

pr. 100 ml	BEFORE Oil Filtration	AFTER 1 hour	AFTER 1 1/2 hour	AFTER 2 hours
> 2 micron	4,000,000	250,000	8,000	4,000
> 5 micron	1,000,000	64,000	2,000	1,000
> 15 micron	500,000	8,000	130	64
ISO Code	23/20/19	18/16/13	13/11/7	12/10/5