



## Wear Test August 2019

Results of the oil analyses of Sucofindo, Indonesia, 22 August 2019

Vehicle used: Toyota Avanza

Sucofindo (founded 22.10.1956) is a state-owned Indonesian company, in conjunction with the Swiss company SGS (Société Générale de Surveillance SA, founded 1915). The SGS Group is the world leader in testing, verification and certification. They are regarded as the global benchmark for quality and integrity. With more than 97,000 employees, they operate a network of more than 2600 subsidiaries and laboratories worldwide.

**The aim of the wear test was to prove that our product XOO (XeenTEC Oil-Optimizer) drastically reduces wear in the engine.**

**Test 1:** The vehicle was oil changed before the test. Afterwards the vehicle drove 4.235km, oil sample was taken and analysed by Sucofindo (result see table).

**Test 2 :** Then again oil change made, XeenTEC XOO filled and 14.078km driven (thus over three times as many km driven as at the first test, so 2 oil changes omitted!). Afterwards oil sample taken and analyzed again by Sucofindo (result see table).

**Result: Drastic wear reduction, even with three times as many driven kilometres and 2 omitted oil changes.**

Oil analyses: ppm	Test 1	Test 2			
Date:	06.03.2019	20.07.2019			
KM-stand	259.159	264.159	269.159	273.237	
KM-driven	4235	5.000	5.000	4.078	
Total km driven	4235	5.000	10.000	14.078	
					<b>Wear reduction after 3 oil change intervals</b>
Copper (Cu)	<b>19,7</b>	Normal	Normal	<b>0,2</b>	<b>-99,98%</b> less wear material in the engine oil
Molybdenum (Mo)*	<b>178</b>	oil-change interval	oil-change interval	<b>8,9</b>	<b>-95,00%</b> less wear material in the engine oil
Tin (Sn)	<b>0,7</b>			<b>0,1</b>	<b>-85,71%</b> less wear material in the engine oil
Aluminium (Al)*	<b>15,9</b>			<b>2,5</b>	<b>-84,28%</b> less wear material in the engine oil
Nickel (Ni)	<b>1,9</b>	No	No	<b>0,4</b>	<b>-78,95%</b> less wear material in the engine oil
Lead (Pb)	<b>1,2</b>			<b>0,6</b>	<b>-50,00%</b> less wear material in the engine oil
Iron (Fe)	<b>19,9</b>	oil changes	oil changes	<b>10,9</b>	<b>-45,23%</b> less wear material in the engine oil
Silicone (Si)*	<b>13,3</b>			<b>9,6</b>	<b>-27,82%</b> less wear material in the engine oil
Vanadium (V)	<b>&lt;0,1</b>			<b>&lt;0,1</b>	<b>0,00%</b> less wear material in the engine oil
Chromium (Cr)	<b>0,3</b>			<b>0,5</b>	Wear material (for 1 oil change) Effective -44,45%, calculated on the 3 intervals!

\*although these materials are supplied by the product