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Company: JLA Ltd  
 Ref No: OTEX LD02

F.A.O: Mr D Cardis Report  
 Date: 08.07.2005

**Ref: VIRAL TESTING WITH OTEX**

A series of experiments have been conducted during which high levels of 4 different virus strains were exposed to the OTEX process. These viruses comprised of both single strand RNA and DNA at a challenge level of  $1 \times 10^{24}$  plaque forming units per mil. The viral particles were non-pathogenic strains or were phage.

After the dosing samples of wash water were examined to determine the presence and number of each viral particle in plain filtration and tissue culture to allow the enumeration of plaque forming units. After OTEX dosing the results indicated no viral particles of any type were recoverable. In my opinion this is an extremely successful outcome.

Virus	Nucleic acid	Family	Genome Data
E.coli T4 Phage	ds DNA	Myovirida (T4 like phages)	Genomes have a Mr of about $120 \times 10^6$ (169 kbp), corresponding to 48% of particle weight, as much as known contain 5-hydroxymethylcytosine (HMC) instead of thymine and are glycosylated, have a G+C content of 35%, and are circularly permuted and terminally redundant.
FCoV <sup>A</sup>	“+” ss RNA	Nidovirales (genus corona virus)	The Corona virus genome is an infectious, linear, positive-sense, polyadenylated and, at least for arteri- and coronaviruses, 5 capped ssRNA molecule. The size Coronavirus is 20 to 25 kb . The coronavirus genome is the largest known non-fragmented viral RNA genome.
Saccharomyces virus ScV-L-BC	ds RNA	Totiviridae	Virions contain a single linear molecule of uncapped dsRNA (4.6–6.7 kbp in size). The positive strand has two large overlapping ORFs; the length of the overlap varies from 16 to 130 nts. The first ORF encodes the viral major capsid protein with a predicted size of 76–81 103. In the case of ScV-L-A, the two reading frames together encode, via translational frameshift, the putative RNA-dependent RNA polymerase as a fusion protein (analogous to gag-pol fusion proteins of the retroviruses) with a predicted Mr of 170 103.
Vibrio phage fs1	ss DNA	Inoviridae	Virions contain one molecule of infectious, circular, positive sense ssDNA. Inovirus genome range from 6 kb to 9 kb.
<i>FCoV<sup>A</sup> attenuated non transmissible variant</i>			

Yours Sincerely

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