Shell Hyperia 680 Gear Oil - Tests on New Oil

Lubetech Pty Ltd

Oil Analysis Report

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Client	**Filter Technology Australia Pty Ltd / New South Wales**		
Contact	Phillip Marheine	*Site*	F.T.A. Rutherford
Address		*Unit ID/Name*	**Shell Test**
		Manufacture/Model	
Telephone	02 4932 9998	*Origin*	**New Oil**
Fax	02 4932 9997	*Fuel/Oil Type*	Shell Hyperia 680 gear oil

Diagnosis:
38699= 7 Passes through FTA filters.
38698= 1 Pass through FTA filters.
38700= New Oil.

	Sample Number	**38699**	38698	38700					Indicative
	Date	**14/12/2002**	13/12/2002	12/12/2002					Levels
	Total Hours/Km								
	Hours/Km on Oil								
	Oil Changed	**NO**	NO	NO					
	Oil Added								
Condition Tests	Fuel Dilution (%)								
	WT Solids (%)								
	Volume Water (%)	**ND**	ND	ND					ND
	Water PPM								
	Viscosity @ 40C (cST)	**622**	622	622					
	TAN (mg/KOH/g)	**0.89**	0.89	0.89					
	TBN (mg/KOH/g)								
	ApH								
	PQ90 Index								
Wear Metals	Aluminum (Al)	**<1**	1	<1					
	Silicon (Si)	**<1**	<1	27					
	Tin (Sn)	**1**	1	2					
	Iron (Fe)	**<1**	<1	<1					
	Lead (Pb)	**<1**	<1	<1					
	Copper (Cu)	**<1**	<1	<1					
	Chromium (Cr)	**<1**	<1	<1					
	Sodium (Na)	**<1**	<1	<1					
	Zinc (Zn)	**1**	1	1					
	Others								
Cleanliness	ISO4406	**14/10**	19/15	20/17					
	Gravi-Metric								
	>2 micron	**227**	6980	17351					
	>5 micron	**84**	2582	6417					
	>15 micron	**9**	276	686					
	Contamination	**Low**	Elevated	High					
DR Ferrorgraph	Total Count								
	Severity Index								
	Size Ratio								
	% Large Particles								
	Wear Types: Rubbing								
	Fatigue								
	Laminar								
	Sliding								
	Cutting								
	Dark/Red Oxide								
	Non-Ferrous								
	Dirt/Sludge								