

JON GILBERT [1610127]

VOLVO PENTA A430603

Center Diesel Engine

DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
No corrective action is recommanded at this time. Description of the	Sample Number		Client Info		VPA061444	VPA054824	
No corrective action is recommended at this time. Resample at the next service interval to monitor.	Sample Date		Client Info		25 Jun 2024	04 Jun 2024	
	Machine Age	hrs	Client Info		124	124	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		N/A	N/A	
	Filter Changed		Client Info		N/A	N/A	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>80	11	3	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		0	<1	
	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m		2	2	
	Lead	ppm	ASTM D5185m		0	0	
	Copper	ppm	ASTM D5185m	>85	<1	<1	
	Tin	ppm	ASTM D5185m		0	<1	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	0'''				•		
CONTAMINATION	Silicon	ppm	ASTM D5185m		6	5	
There is no indication of any contamination in the oil.	Potassium Fuel	ppm	ASTM D5185m WC Method	>20	1	2 <1.0	
·	Water		WC Method		<1.0 NEG	NEG	
	Glycol		WC Method	>0.1	NEG	NEG	
	Soot %	%	*ASTM D7844		0.1	0.1	
	Nitration	Abs/cm	*ASTM D7644	>20	5.7	4.7	
	Sulfation	Abs/.1mm	*ASTM D7024		17.5	17.6	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		1	<1	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		25	8	
	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m	100	48	55	
	Manganese	ppm	ASTM D5185m	450	<1	0	
	Magnesium	ppm	ASTM D5185m		948	925	
	Calcium	ppm	ASTM D5185m	3000	1224	1067	
	Phosphorus Zinc	ppm	ASTM D5185m		885	1000	
		ppm	ASTM D5185m		1214	1199	
	Sulfur	ppm	ASTM D5185m	4250	3825	3472	

Oxidation

Visc @ 100°C cSt

12.9

10.0

14.7

13.0

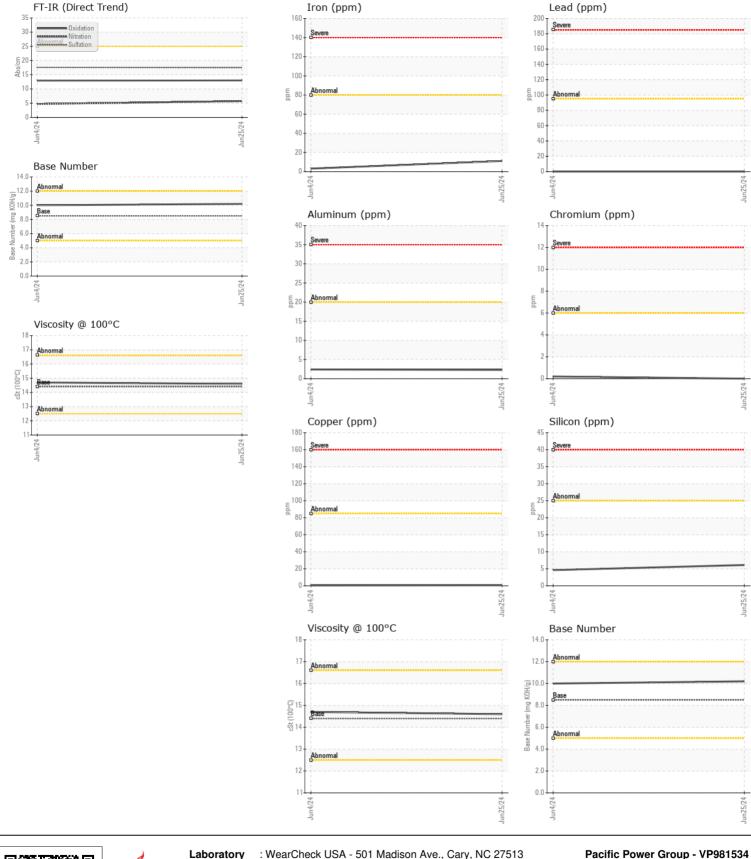
10.2

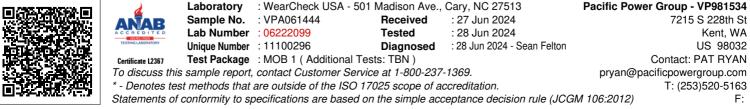
14.6

Abs/.1mm *ASTM D7414 >25

ASTM D445 14.4

Base Number (BN) mg KOH/g ASTM D2896 8.5





Contact/Location: PAT RYAN - VP99031103 Page 2 of 2