OIL ANALYSIS REPORT

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Area DARYL PURFEERST [SAM] Machine Id VOLVO PENTA 2071181846

Port Diesel Engine

VOLVO PENTA SAE 15W40 (7 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA053083	VPA035145	
	Sample Date		Client Info		19 Apr 2024	13 Jan 2022	
	Machine Age	hrs	Client Info		645	531	
	Oil Age	hrs	Client Info		114	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>80	11	27	
	Chromium	ppm	ASTM D5185m	>6	0	3	
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		2	5	
	Titanium	ppm	ASTM D5185m		0	<1	
	Silver	ppm	ASTM D5185m		0	3	
	Aluminum	ppm	ASTM D5185m		1	6	
	Lead	ppm	ASTM D5185m		1	7	
	Copper	ppm	ASTM D5185m		22	38	
	Tin	ppm	ASTM D5185m		0	2	
	Vanadium	ppm	ASTM D5185m		0	<1	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5	7	
	Potassium	ppm	ASTM D5185m		0	1	
There is no indication of any contamination in the oil.	Fuel	pp	WC Method	>4.0	<1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844		0.4	0.7	
	Nitration	Abs/cm		>20	6.7	8.1	
	Sulfation	Abs/.1mm	*ASTM D7415		20.0	22.1	
	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		2	12	
	Boron	ppm	ASTM D5185m		0	10	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m		61	52	
	Manganese	ppm	ASTM D5185m		0	<1	
	Magnesium	ppm	ASTM D5185m		1047	960	
	Calcium	ppm	ASTM D5185m		1216	1115	
	Phosphorus	ppm	ASTM D5185m		1141	1012	
	Zinc	ppm	ASTM D5185m		1396	1258	
	Sulfur	ppm	ASTM D5185m		3948	3191	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	16.1	
	D N / CT						

Base Number (BN) mg KOH/g ASTM D2896

ASTM D445

Visc @ 100°C cSt

10.8

13.4

10.0

13.1



