

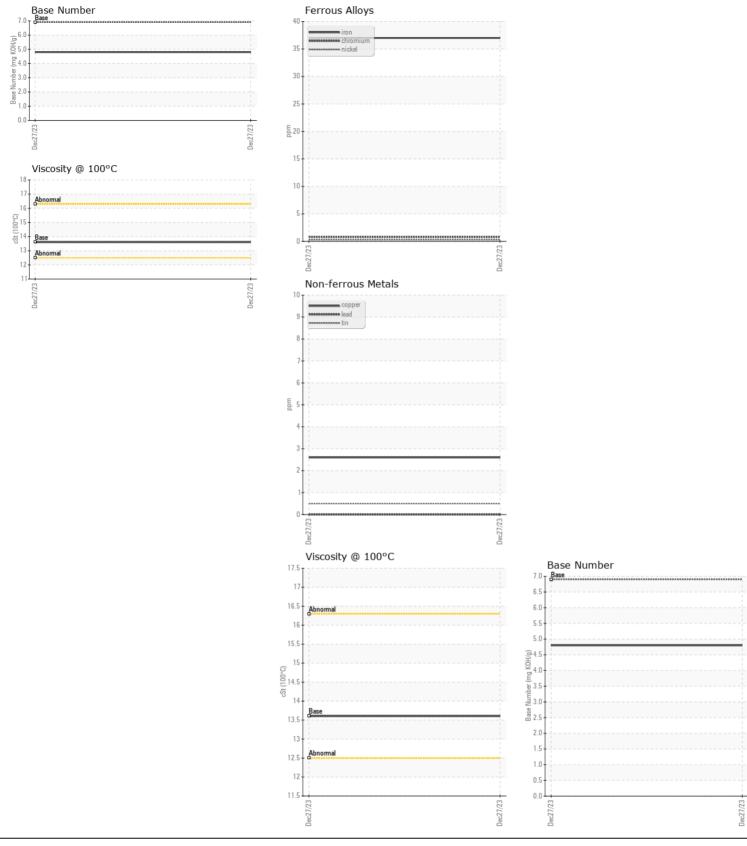
Machine Id 183798 Component Diesel Engine VALVOLINE 15W40 (--- GAL)

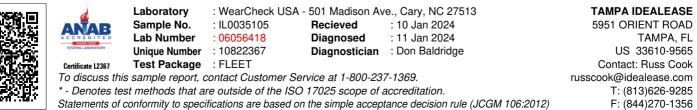
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		IL0035105		
	Sample Date		Client Info		27 Dec 2023		
	Machine Age	mls	Client Info		79116		
	Oil Age	mls	Client Info		0		
	Filter Age	mls	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR All component wear rates are normal.	Iron		ASTM D5185m	> 100	37		
	Chromium	ppm	ASTM D5185m		37 <1		
	Nickel	ppm	ASTM D5185m		<1 <1		
	Titanium	ppm	ASTM D5185m	>4	<1		
	Silver	ppm		. 0	<1 0		
		ppm	ASTM D5185m				
	Aluminum	ppm	ASTM D5185m		14		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		3		
	Tin	ppm	ASTM D5185m	>15	<1		
	Vanadium	ppm	ASTM D5185m		<1 NONE		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m		8		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		28		
	Fuel			>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method	-	NEG		
	Soot %	%	*ASTM D7844		0.7		
	Nitration	Abs/cm	*ASTM D7624	>20	12.2		
	Sulfation	Abs/.1mm	*ASTM D7415		27.8		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2		
	Boron	ppm	ASTM D5185m	39	59		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		84		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		175		
	Calcium	ppm	ASTM D5185m		1833		
	Phosphorus	ppm	ASTM D5185m		1002		
	Zinc	ppm	ASTM D5185m		1216		
	Sulfur	ppm	ASTM D5185m		3511		
	Oxidation	Abs/.1mm	*ASTM D310311		24.3		
	Base Number (BN)				4.8		
		ing noning	10111102000	0.0	4.0		

Visc @ 100°C cSt

ASTM D445 13.6

13.6





Ø

Contact/Location: Russ Cook - IDETAMFL

Page 2 of 2