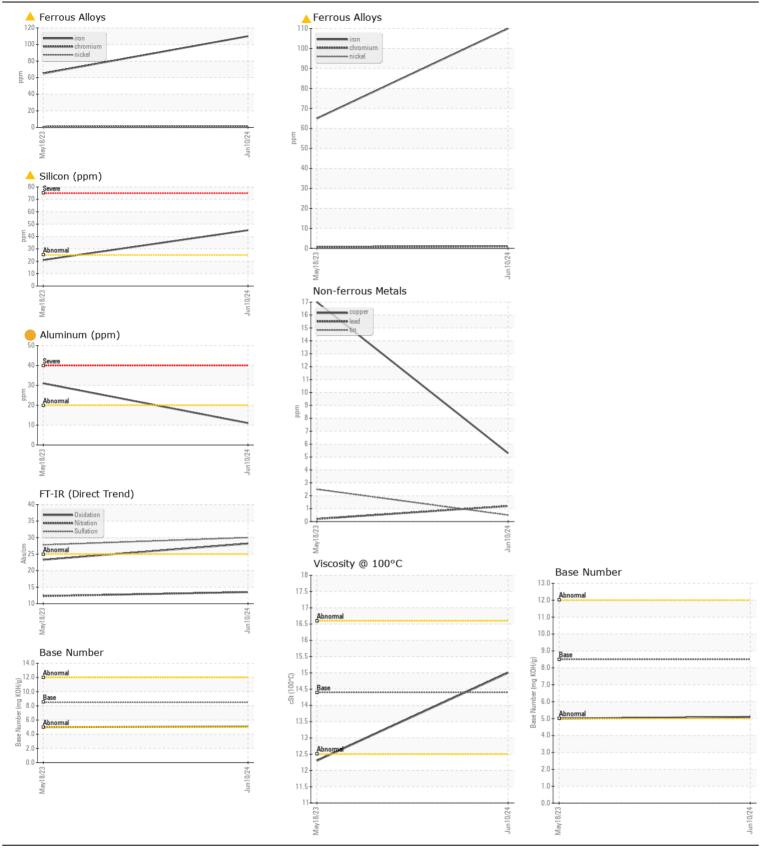


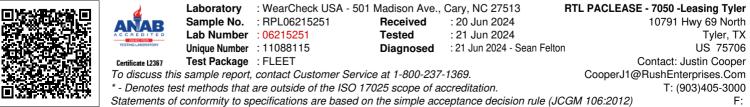
WEAR ABNORMAL CONTAMINATION ABNORMAL FLUID CONDITION NORMAL

Machine Id

781266 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 40 (--- LTR)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		RPL06215251	RPL05855405	
	Sample Date		Client Info		10 Jun 2024	18 May 2023	
	Machine Age	mls	Client Info		132478	31429	
	Oil Age	mls	Client Info		0	31429	
	Filter Age	mls	Client Info		0	0	
	Oil Changed		Client Info		N/A	N/A	
	Filter Changed		Client Info		N/A	N/A	
	Sample Status				ABNORMAL	NORMAL	
WEAR	Iron	nnm	ASTM D5185m	>100	110	65	
	Chromium	ppm ppm	ASTM D5185m		1	<1	
	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m	~7	1	<1	
	Silver	ppm	ASTM D5185m	-3	0	<1	
	Aluminum	ppm	ASTM D5185m		1 1	31	
	Lead	ppm	ASTM D5185m		1	<1	
	Copper	ppm	ASTM D5185m		5	17	
	Tin	ppm	ASTM D5185m		ء <1	2	
	Vanadium	ppm	ASTM D5185m		<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4 5	21	
	Potassium	ppm	ASTM D5185m	>20	15	82	
	Fuel		WC Method	>5	<1.0	0.3	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.8	0.4	
	Nitration	Abs/cm	*ASTM D7624	>20	13.5	12.3	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	30.0	27.8	
	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	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>216	3	5	
	Boron	ppm	ASTM D5185m		41	25	
	Barium	ppm	ASTM D5185m		<1	0	
	Molybdenum	ppm	ASTM D5185m		137	30	
	Manganese	ppm	ASTM D5185m		2	3	
	Magnesium	ppm	ASTM D5185m	450	747	804	
	Calcium	ppm	ASTM D5185m		1928	1540	
	Phosphorus	ppm	ASTM D5185m		839	758	
	Zinc	ppm	ASTM D5185m		1045	925	
	Sulfur	ppm	ASTM D5185m		3124	3622	
	Oxidation	Abs/.1mm	*ASTM D7414		28.2	23.3	
	Base Number (BN)		ASTM D2896		5.1	5.0	
	Visc @ 100°C	cSt	ASTM D445		15.0	12.3	





Contact/Location: Justin Cooper - PAC7050 Page 2 of 2