

## Machine Id 1020 Component **Diesel Engine** DIESEL ENGINE OIL SAE 15W40 (--- GAL)

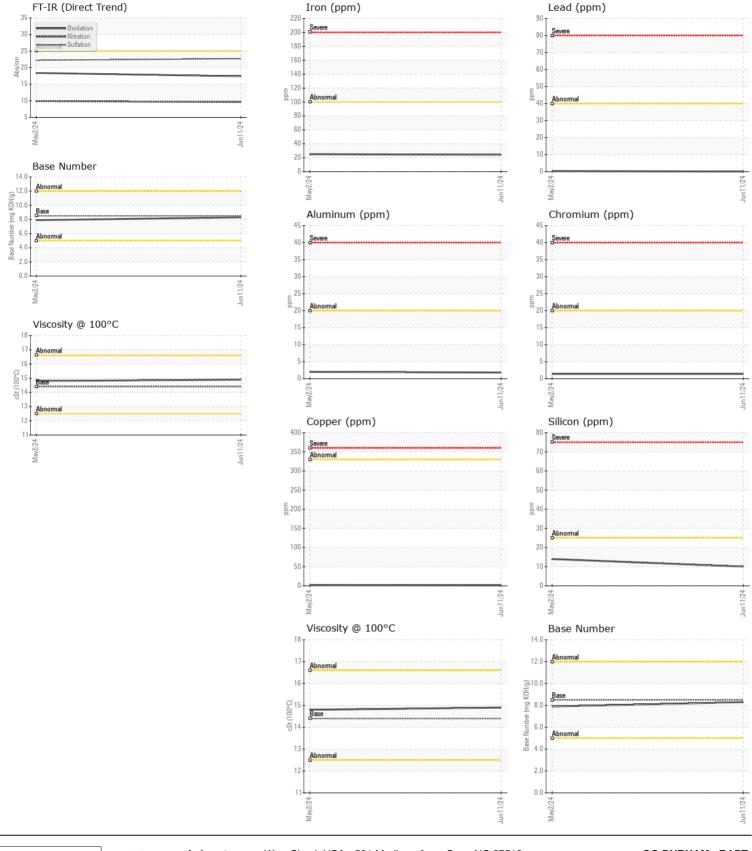
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		WC0897817	WC0897908	
	Sample Date		Client Info		11 Jun 2024	02 May 2024	
	Machine Age	mls	Client Info		824470	0	
	Oil Age	mls	Client Info		0	0	
	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				NORMAL	NORMAL	
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	24	25	
	Chromium	ppm	ASTM D5185m		1	1	
	Nickel	ppm	ASTM D5185m		0	<1	
	Titanium	ppm	ASTM D5185m	~7	<1	<1	
	Silver	ppm	ASTM D5185m	>3	0	0	
	Aluminum	ppm	ASTM D5185m		2	2	
	Lead	ppm	ASTM D5185m		0	<1	
	Copper	ppm	ASTM D5185m		1	2	
	Tin	ppm	ASTM D5185m		0	<1	
	Vanadium	ppm	ASTM D5185m	210	<1	<1	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	10	14	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	6	6	
	Fuel		WC Method	>5	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	1.8	1.3	
	Nitration	Abs/cm	*ASTM D7624	>20	9.6	9.9	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	22.2	
	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		ASTM D5185m	. 150	0	0	
	Boron	ppm	ASTM D5185m		3	0	
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		<1 0	2	
	Molybdenum	ppm	ASTM D5185m		61	66	
	Manganese	ppm ppm	ASTM D5185m	100	<1	<1	
	Magnesium	ppm	ASTM D5185m	450	1026	972	
	Calcium		ASTM D5185m	3000	1205	1134	
	Phosphorus	ppm ppm	ASTM D5185m		1205	1132	
	Zinc		ASTM D5185m		1373	1278	
	Sulfur	ppm	ASTM D5185m		3579	3226	
	Oxidation	ppm Abs/.1mm	*ASTM D5185111 *ASTM D7414		3579 17.4	18.4	
	Base Number (BN)				8.3	7.9	
				0.0	0.5	1.5	

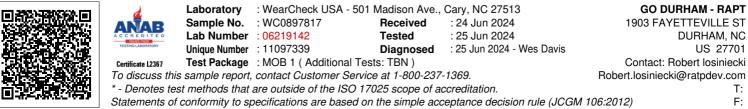
Visc @ 100°C cSt

14.8

14.9

ASTM D445 14.4





Contact/Location: Robert Iosiniecki - GODDUR Page 2 of 2