

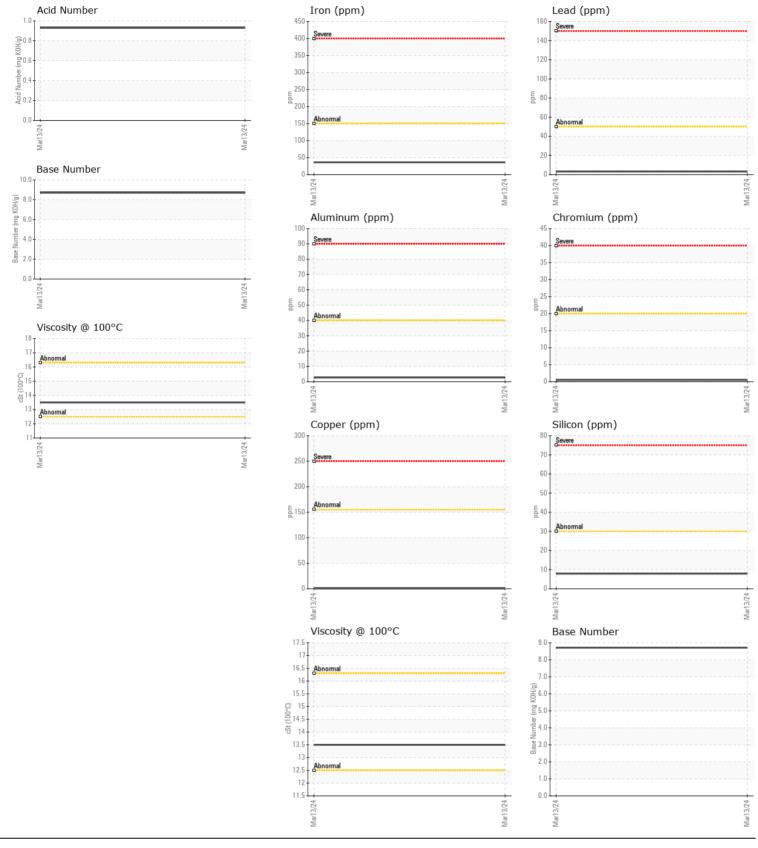
## Machine Id GM Component Gasoline Engine Fluid ALPHA SYNTHETIC PREMIUM 5W40 (--- QTS)

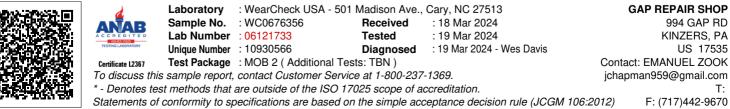
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0676356		
Resample at the next service interval to monitor. Please specify the	Sample Date		Client Info		13 Mar 2024		
component make and model with your next sample.	Machine Age	hrs	Client Info		2902		
	Oil Age	hrs	Client Info		418		
	Filter Age	hrs	Client Info		418		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>150	36		
	Chromium	ppm	ASTM D5185m	>20	<1		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>5	0		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m	>2	0		
	Aluminum	ppm	ASTM D5185m	>40	3		
	Lead	ppm	ASTM D5185m	>50	3		
	Copper	ppm	ASTM D5185m	>155	<1		
	Tin	ppm	ASTM D5185m	>10	2		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>30	8		
There is no indication of any contamination in the cil	Potassium	ppm	ASTM D5185m	>20	2		
There is no indication of any contamination in the oil.	Fuel		WC Method	>4.0	<1.0		

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Tin	ppm	ASTM D5185m	>10	2	2	 
Vanadium	ppm	ASTM D5185m		0	)	 
White Metal	scalar	*Visual	NONE	Ν	ONE	 
Yellow Metal	scalar	*Visual	NONE	N	ONE	 
Silicon	ppm	ASTM D5185m	>30	8		 
Potassium	ppm	ASTM D5185m	>20	2	_	 
Fuel		WC Method	>4.0		:1.0	 
Water		WC Method	>0.2	Ν	IEG	 
Glycol		WC Method		Ν	IEG	 
Soot %	%	*ASTM D7844		0	)	 
Nitration	Abs/cm	*ASTM D7624	>20	8	8.9	 
Sulfation	Abs/.1mm	*ASTM D7415	>30	1	9.2	 
Silt	scalar	*Visual	NONE	Ν	ONE	 
Debris	scalar	*Visual	NONE	١	ONE	 
Sand/Dirt	scalar	*Visual	NONE	١	ONE	 
Appearance	scalar	*Visual	NORML	N	ORML	 
Odor	scalar	*Visual	NORML	Ν	ORML	 
Emulsified Water	scalar	*Visual	>0.2	١	IEG	 
Sodium	ppm	ASTM D5185m	>400	4	l I	 
Boron	ppm	ASTM D5185m		<	:1	 
Barium	ppm	ASTM D5185m		0	)	 
Molybdenum	ppm	ASTM D5185m		6	68	 
Manganese	ppm	ASTM D5185m		0	)	 
Magnesium	ppm	ASTM D5185m		9	61	 
Calcium	ppm	ASTM D5185m		1	134	 
Phosphorus	ppm	ASTM D5185m		9	85	 
Zinc	ppm	ASTM D5185m		1	241	 
Sulfur	ppm	ASTM D5185m		2	762	 
Oxidation	Abs/.1mm	*ASTM D7414	>25	1	5.5	 
Acid Number (AN)	mg KOH/g	ASTM D8045		0	.93	 
Base Number (BN)	mg KOH/g	ASTM D2896		8	3.71	 
Visc @ 100°C	cSt	ASTM D445		1	3.5	 





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