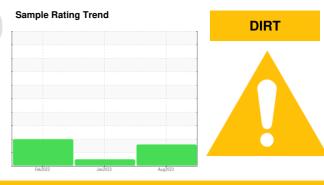


OIL ANALYSIS REPORT



Machine Id 151000

Component Gasoline Engine

Fluid PETRO CANADA SUPREME HIGH MILEAGE 5W20 (8 LTR)

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. There is a moderate concentration of dirt present in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORM	/IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0044436	GFL0060931	GFL0044428
Sample Date		Client Info		15 Aug 2023	12 Jan 2023	23 Feb 2022
Machine Age	kms	Client Info		81928	60236	2021
Oil Age	kms	Client Info		0	0	400
Oil Changed		Client Info		N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	SEVERE
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>150	24	18	1
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>5	0	<1	<1
Titanium	ppm	ASTM D5185(m)		<1	<1	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>40	6	5	1
Lead	ppm	ASTM D5185(m)	>50	0	0	0
Copper	ppm	ASTM D5185(m)	>155	1	<1	<1
Tin	ppm	ASTM D5185(m)	>10	0	0	0
Antimony	ppm	ASTM D5185(m)		0	<1	<1
Vanadium	ppm	ASTM D5185(m)		<1	<1	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	264	11	10	154
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	79	251	97	52
Manganese	ppm	ASTM D5185(m)	0	<1	<1	0
Magnesium	ppm	ASTM D5185(m)	567	470	575	412
Calcium	ppm	ASTM D5185(m)	991	1240	1238	995
Phosphorus	ppm	ASTM D5185(m)	763	644	710	564
Zinc	ppm	ASTM D5185(m)	840	742	769	610
Sulfur	ppm	ASTM D5185(m)	2578	2004	2077	1930
Lithium	ppm	ASTM D5185(m)		<1	<1	0
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>30	A 32	10	7
Sodium	ppm	ASTM D5185(m)	>400	54	22	2
Potassium	ppm	ASTM D5185(m)	>20	1	2	<1
Fuel	%	ASTM D7593*	>4.0	1.4	1.8	8
Glycol	%	ASTM D7922*		0.0	0.0	NEG
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.3	11.1	4.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	31.9	26.6	16.1
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	27.1	19.1	11.0



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