



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>ABNORMAL</b>

Machine Id  
**HYUNDAI 5NMS5CAA0LH266769**

Component  
**Gasoline Engine**

Fluid  
**DEXOS 5W30 (5 LTR)**

## RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

## WEAR

All component wear rates are normal.

## CONTAMINATION

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

## FLUID CONDITION

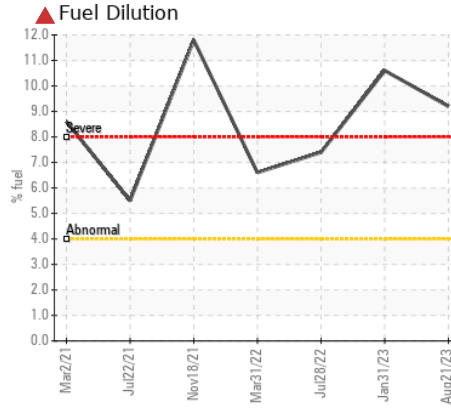
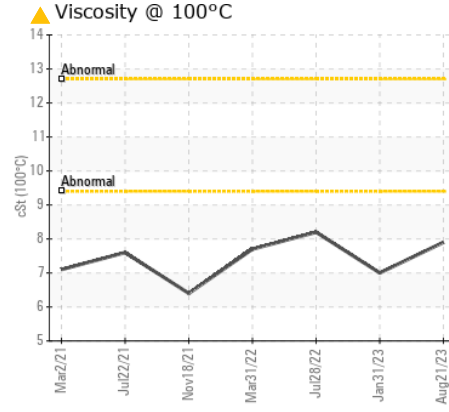
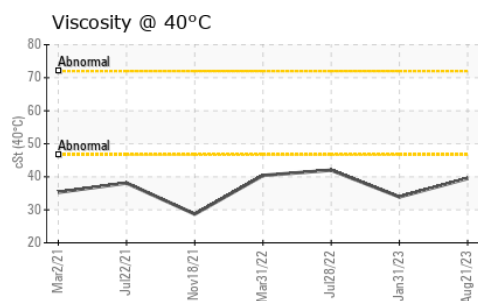
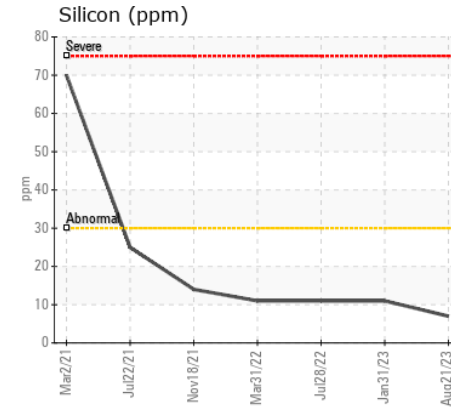
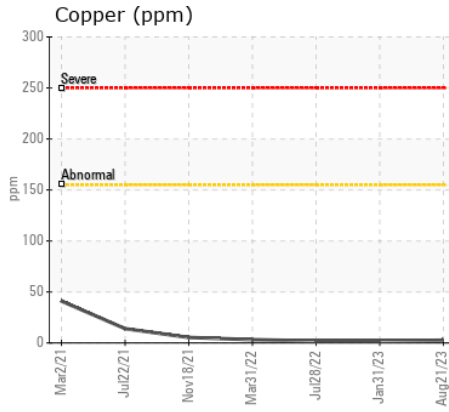
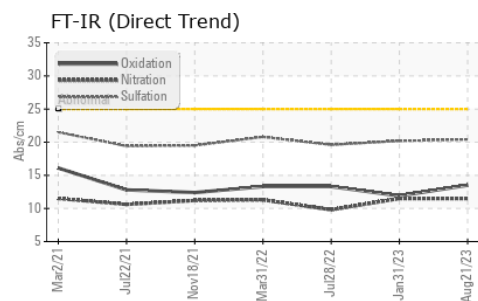
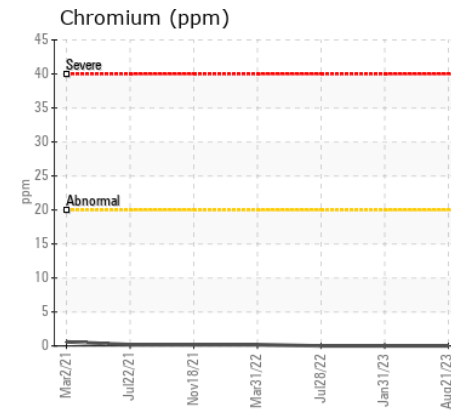
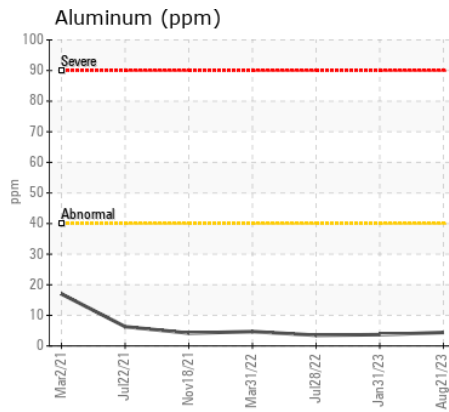
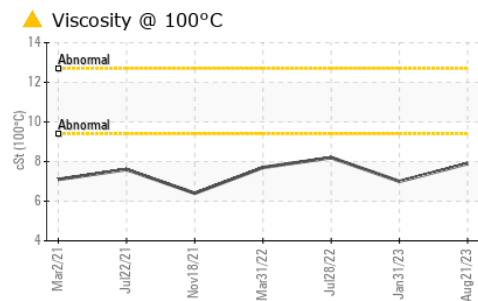
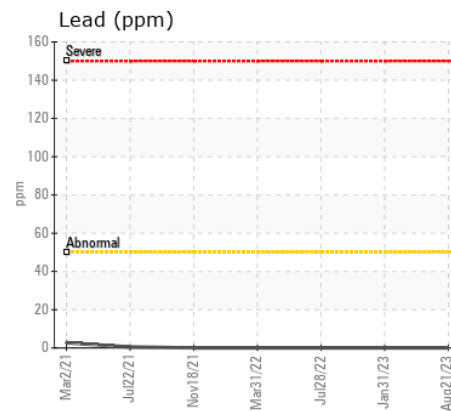
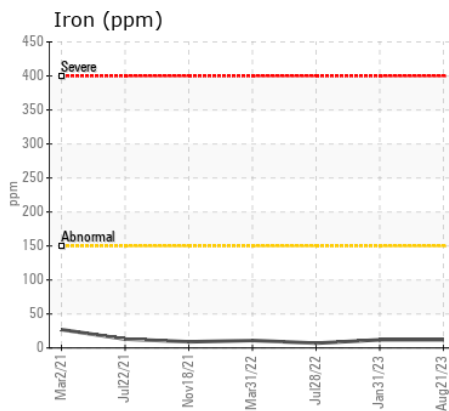
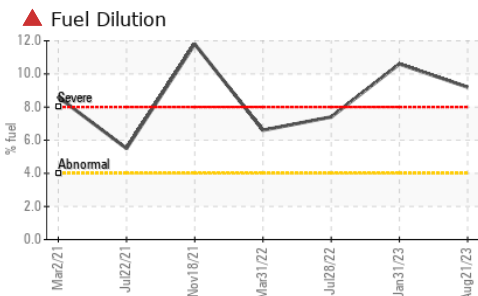
Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0081783</b>	PC0046035	PC425792
Sample Date		Client Info		<b>21 Aug 2023</b>	31 Jan 2023	28 Jul 2022
Machine Age	kms	Client Info		<b>48660</b>	0	32015
Oil Age	kms	Client Info		<b>0</b>	7411	6383
Filter Age	kms	Client Info		<b>0</b>	7411	6383
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>SEVERE</b>	SEVERE	ABNORMAL

Iron	ppm	ASTM D5185(m)	>150	<b>12</b>	12	7
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>40	<b>4</b>	4	4
Lead	ppm	ASTM D5185(m)	>50	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>155	<b>3</b>	2	2
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1

Silicon	ppm	ASTM D5185(m)	>30	<b>7</b>	11	11
Potassium	ppm	ASTM D5185(m)	>20	<b>5</b>	3	3
Fuel	%	ASTM D7593*	>4.0	<b>▲ 9.2</b>	▲ 10.6	▲ 7.4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.5</b>	11.5	9.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.4</b>	20.2	19.6
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

Sodium	ppm	ASTM D5185(m)	>400	<b>3</b>	2	2
Boron	ppm	ASTM D5185(m)		<b>34</b>	32	47
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)		<b>138</b>	129	134
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>382</b>	361	390
Calcium	ppm	ASTM D5185(m)		<b>1187</b>	1218	1241
Phosphorus	ppm	ASTM D5185(m)		<b>612</b>	643	612
Zinc	ppm	ASTM D5185(m)		<b>712</b>	691	727
Sulfur	ppm	ASTM D5185(m)		<b>1559</b>	1566	1648
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.5</b>	11.9	13.3
Visc @ 40°C	cSt	ASTM D7279(m)		<b>39.5</b>	▲ 33.9	▲ 42.0
Visc @ 100°C	cSt	ASTM D7279(m)		<b>▲ 7.9</b>	▲ 7	▲ 8.2
Viscosity Index (VI)	Scale	ASTM D2270*		<b>176</b>	174	173



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0081783 **Received** : 15 Apr 2024  
**Lab Number** : 02628705 **Tested** : 16 Apr 2024  
**Unique Number** : 5761837 **Diagnosed** : 16 Apr 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: KV40, PercentFuel, VI )

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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.