



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

Machine Id  
**HYUNDAI HYUNDAI HX300 TH-20**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>CL0005375</b>	---	---
Sample Date		Client Info		<b>15 Apr 2024</b>	---	---
Machine Age	hrs	Client Info		<b>541</b>	---	---
Oil Age	hrs	Client Info		<b>541</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

**WEAR**

Metal levels are typical for a components first oil change.

Iron	ppm	ASTM D5185m	>100	<b>23</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>70</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

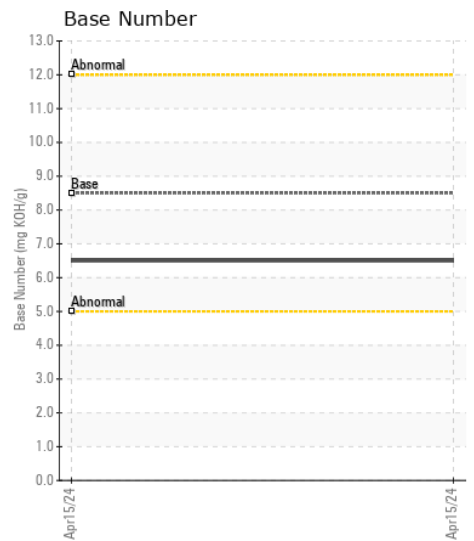
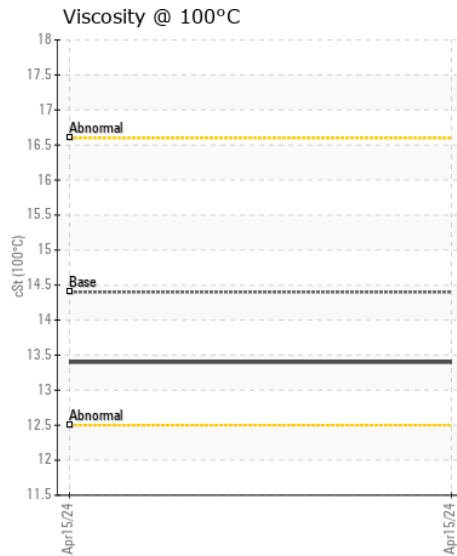
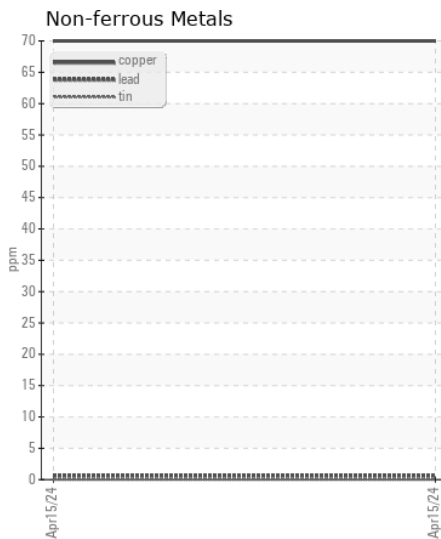
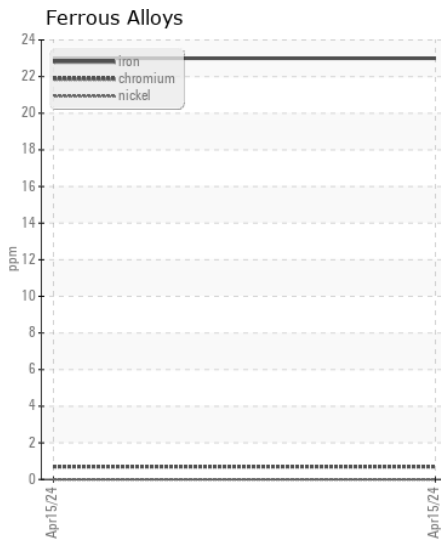
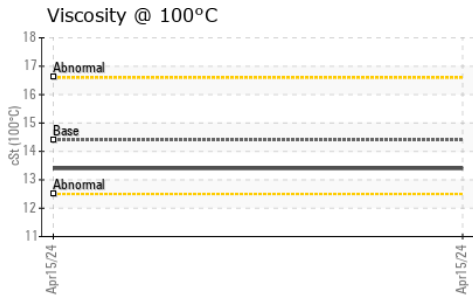
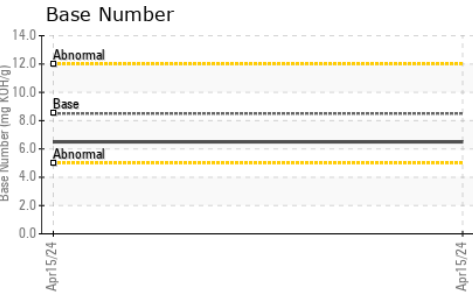
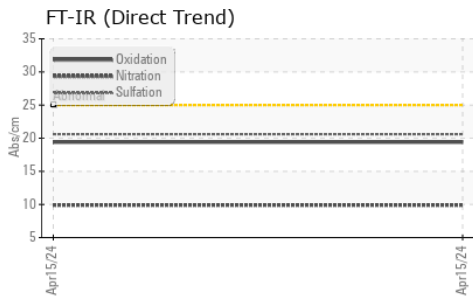
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>23</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.9</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.6</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	<b>4</b>	---	---
Boron	ppm	ASTM D5185m	250	<b>22</b>	---	---
Barium	ppm	ASTM D5185m	10	<b>5</b>	---	---
Molybdenum	ppm	ASTM D5185m	100	<b>54</b>	---	---
Manganese	ppm	ASTM D5185m		<b>3</b>	---	---
Magnesium	ppm	ASTM D5185m	450	<b>896</b>	---	---
Calcium	ppm	ASTM D5185m	3000	<b>1455</b>	---	---
Phosphorus	ppm	ASTM D5185m	1150	<b>828</b>	---	---
Zinc	ppm	ASTM D5185m	1350	<b>1113</b>	---	---
Sulfur	ppm	ASTM D5185m	4250	<b>3147</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.4</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>6.5</b>	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.4</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : CL0005375 **Received** : 24 Apr 2024  
**Lab Number** : 06159628 **Tested** : 25 Apr 2024  
**Unique Number** : 10995051 **Diagnosed** : 25 Apr 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**BULLSEYE CONSTRUCTION**  
 581 N POLK ST  
 PINEVILLE, NC  
 US 28134  
 Contact: SERVICE MANAGER

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:  
F: