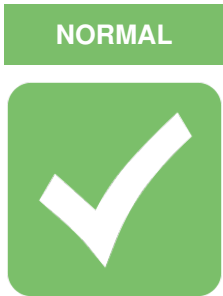
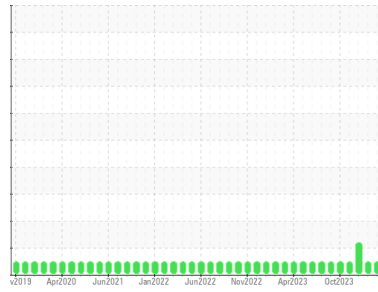




# OIL ANALYSIS REPORT

Area  
**OIL**  
 Machine Id  
**GN-4020A (S/N SOLAR A)**  
 Component  
**Turbine**  
 Fluid  
**CASTROL PERFECTO XPG 32 (1000 GAL)**

Sample Rating Trend



## DIAGNOSIS

**Recommendation**  
 Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

**Fluid Condition**  
 The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>HLC0003220</b>	HLC0002965	HLC0002856
Sample Date	Client Info			<b>20 Mar 2024</b>	07 Feb 2024	05 Dec 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	3592
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.03	<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>1</b>	0	1
Lead	ppm	ASTM D5185m		<b>3</b>	<1	2
Copper	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m	>5	<b>1</b>	2	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

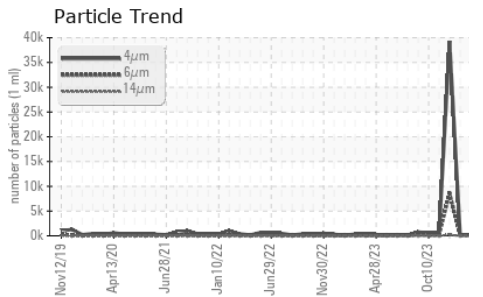
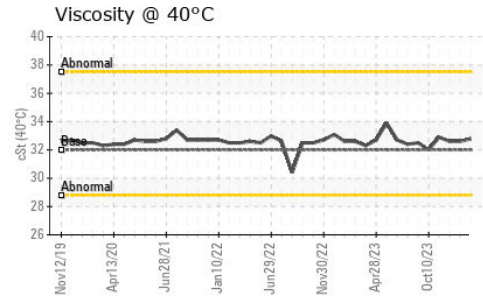
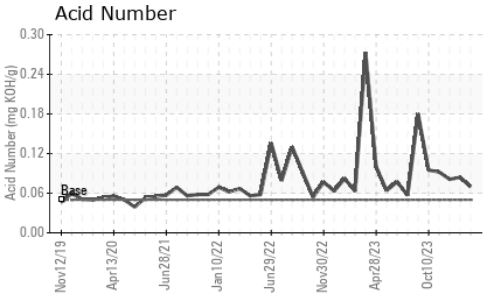
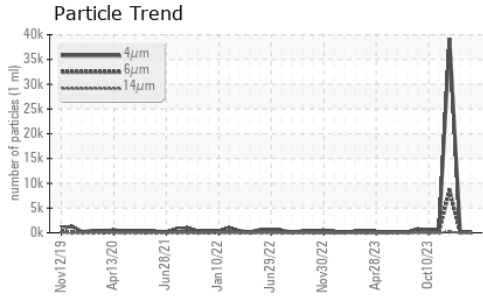
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	10
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	0	<b>2</b>	0	<1
Calcium	ppm	ASTM D5185m	0	<b>6</b>	0	4
Phosphorus	ppm	ASTM D5185m	25	<b>12</b>	0	6
Zinc	ppm	ASTM D5185m	0	<b>2</b>	0	0
Sulfur	ppm	ASTM D5185m	1500	<b>519</b>	138	345

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>2</b>	2	2
Sodium	ppm	ASTM D5185m		<b>16</b>	15	21
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>211</b>	211	39246
Particles >6µm		ASTM D7647	>1300	<b>53</b>	55	▲ 8706
Particles >14µm		ASTM D7647	>160	<b>3</b>	11	● 183
Particles >21µm		ASTM D7647	>40	<b>1</b>	4	38
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/14	<b>15/13/9</b>	15/13/11	▲ 22/20/15

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.05	<b>0.07</b>	0.084	0.081

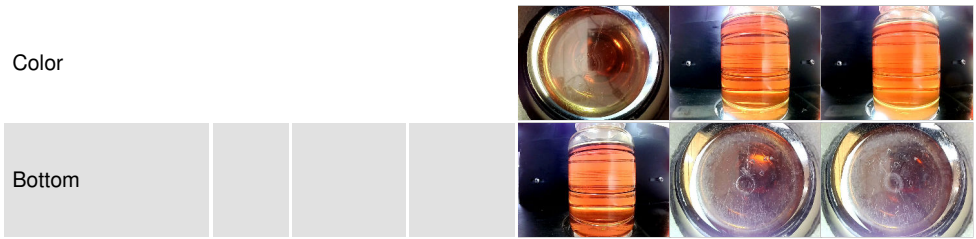
# OIL ANALYSIS REPORT



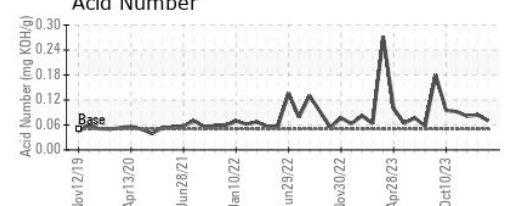
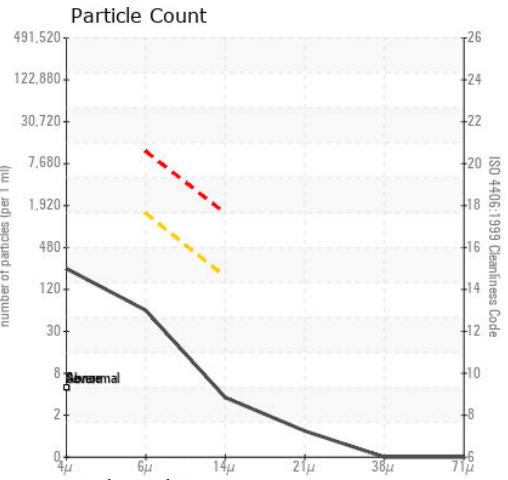
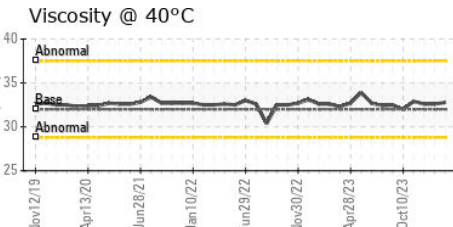
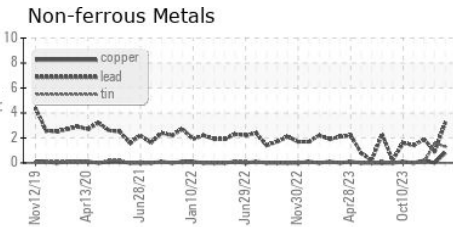
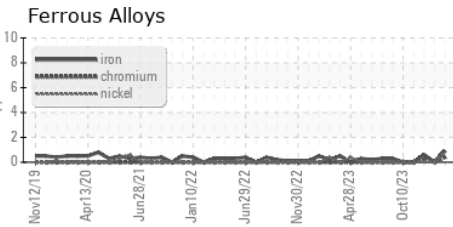
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.03	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	32.0	<b>32.78</b>	32.6	32.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HLC0003220      **Received** : 11 Apr 2024  
**Lab Number** : 06146548      **Tested** : 18 Apr 2024  
**Unique Number** : 10976626      **Diagnosed** : 18 Apr 2024 - Jonathan Hester  
**Test Package** : IND 2

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 F: (907)659-5377

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)