



# OIL ANALYSIS REPORT

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

Machine Id  
**A-960.58**  
 Component  
**Gearbox**  
 Fluid  
**HPL PL 220 (--- LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

## WEAR

All component wear rates are normal.

## CONTAMINATION

There is no indication of any contamination in the oil.

## FLUID CONDITION

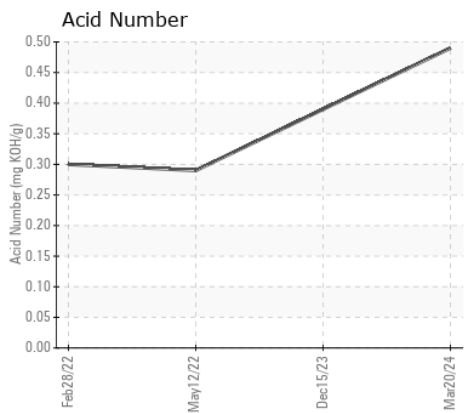
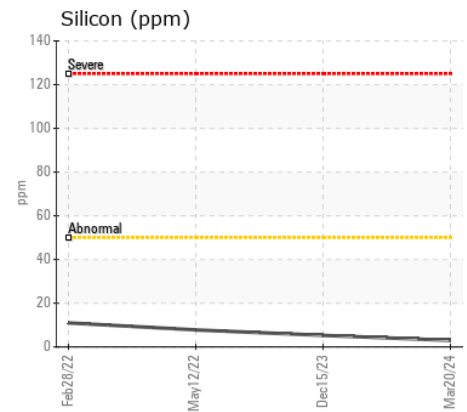
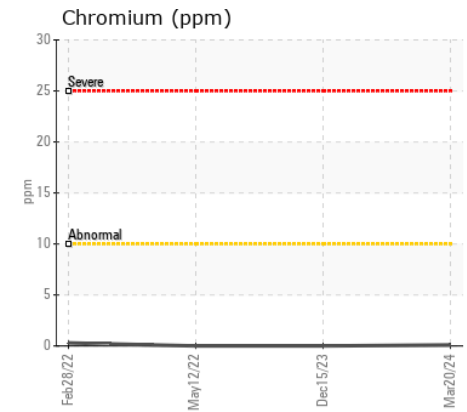
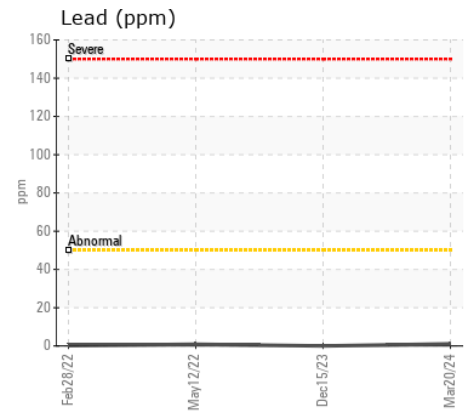
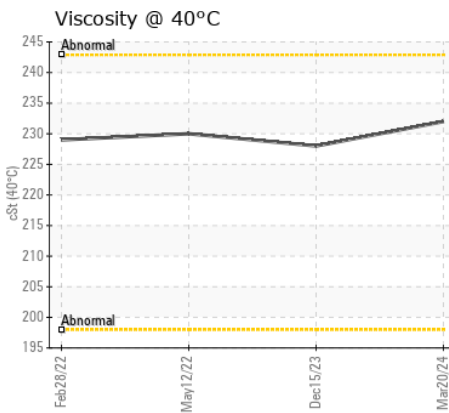
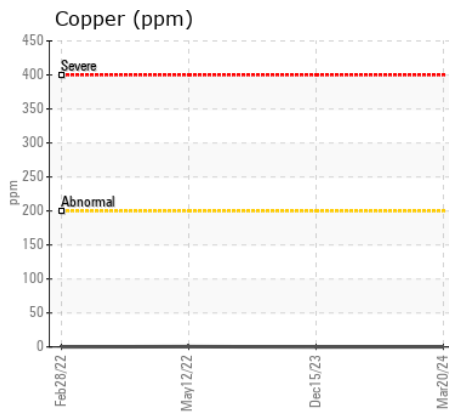
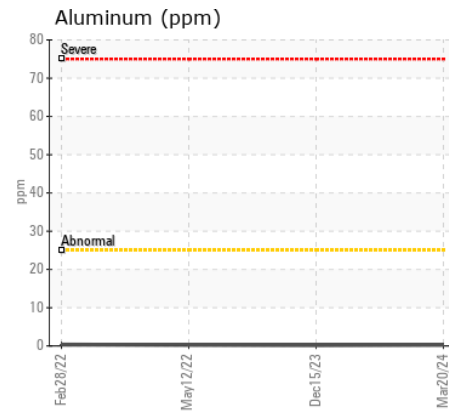
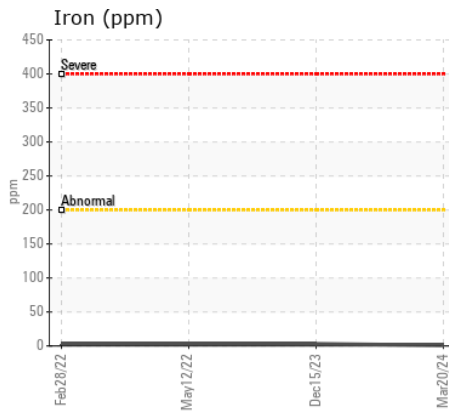
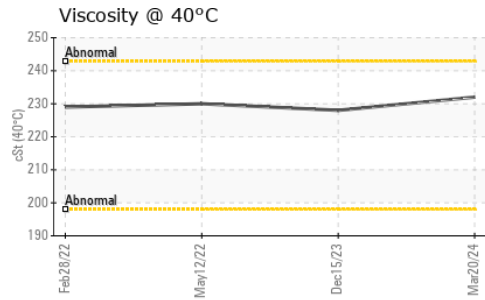
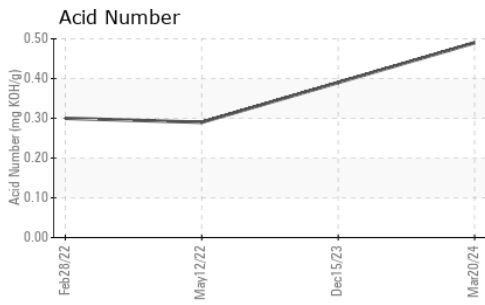
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>HPL0004471</b>	HPL0004088	HPL0000213
Sample Date		Client Info		<b>20 Mar 2024</b>	15 Dec 2023	12 May 2022
Machine Age	days	Client Info		<b>0</b>	0	0
Oil Age	days	Client Info		<b>0</b>	0	0
Filter Age	days	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

Iron	ppm	ASTM D5185m	>200	<b>1</b>	3	3
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m	>50	<b>1</b>	0	<1
Copper	ppm	ASTM D5185m	>200	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m	>10	<b>1</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

Silicon	ppm	ASTM D5185m	>50	<b>3</b>	5	8
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	8	15
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

Sodium	ppm	ASTM D5185m		<b>0</b>	1	3
Boron	ppm	ASTM D5185m		<b>0</b>	0	6
Barium	ppm	ASTM D5185m		<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>3</b>	3	1
Calcium	ppm	ASTM D5185m		<b>5</b>	32	64
Phosphorus	ppm	ASTM D5185m		<b>505</b>	529	651
Zinc	ppm	ASTM D5185m		<b>2</b>	0	0
Sulfur	ppm	ASTM D5185m		<b>1070</b>	675	764
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.49</b>	0.39	0.29
Visc @ 40°C	cSt	ASTM D445		<b>232</b>	228	230



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HPL0004471  
**Lab Number** : 06147514  
**Unique Number** : 10977592  
**Test Package** : MOB 2

**Received** : 12 Apr 2024  
**Tested** : 15 Apr 2024  
**Diagnosed** : 15 Apr 2024 - Wes Davis

**STEPAN - MILLSDALE PLANT**  
 22500W. Millsdale Rd.  
 Elwood, IL  
 US 60421

Contact: Gregory Brooker  
 gbrooker@stepan.com

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: (815)774-5265  
 F: (815)774-5427