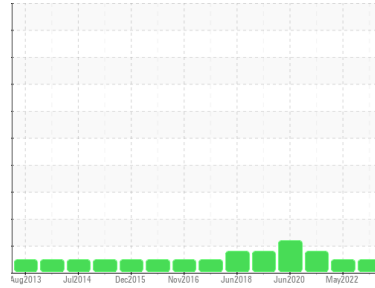




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**HIGHLAND [600380499]**  
 Machine Id  
**21WEA80828**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL TELLUS ARTIC 32 (--- LTR)**

## 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 component. The amount and size of particulates present in the system is 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>NX05928168</b>	NX05602803	NX05387321
Sample Date	Client Info		<b>07 Jul 2023</b>	04 May 2022	17 Aug 2021
Machine Age	mths	Client Info	<b>0</b>	0	0
Oil Age	mths	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	MARGINAL

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		<b>16</b>	20	22
Iron	ppm	ASTM D5185m >20	<b>9</b>	13	▲ 22
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >20	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185m >20	<b>2</b>	2	4
Copper	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	1
Tin	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185m 5	<b>4</b>	9	15
Phosphorus	ppm	ASTM D5185m 600	<b>536</b>	505	563
Zinc	ppm	ASTM D5185m 50	<b>73</b>	68	92
Sulfur	ppm	ASTM D5185m 900	<b>709</b>	979	980

## CONTAMINANTS

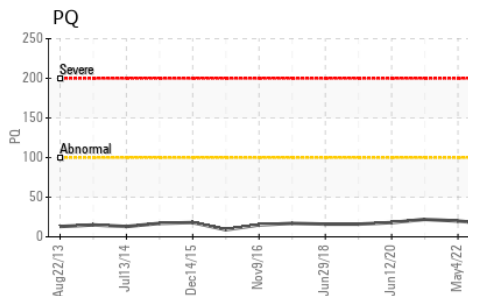
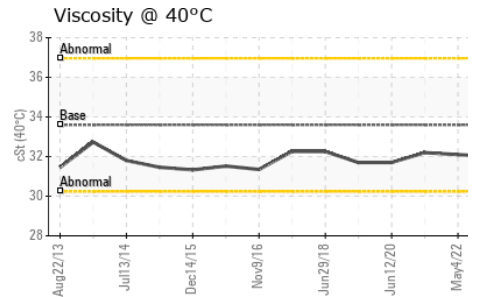
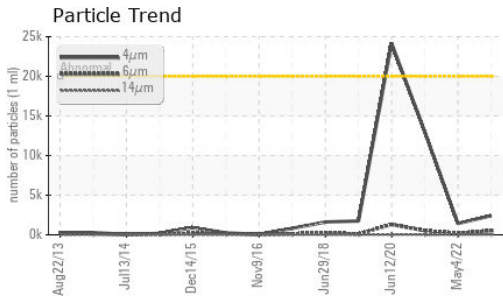
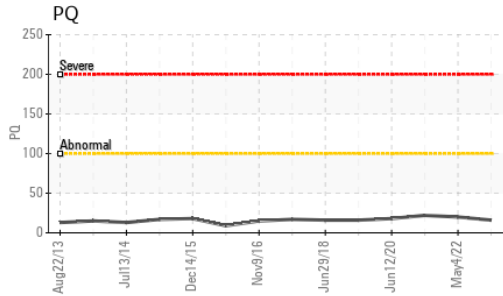
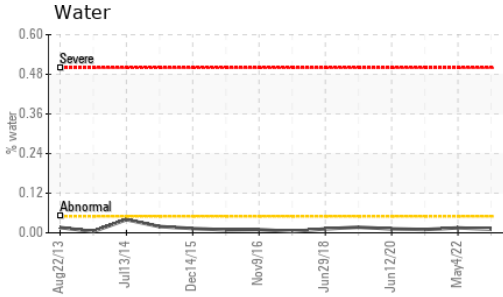
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>&lt;1</b>	1	2
Sodium	ppm	ASTM D5185m	<b>0</b>	0	1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	0
Water	%	ASTM D6304 >0.05	<b>0.011</b>	0.015	0.010
ppm Water	ppm	ASTM D6304 >500	<b>110.4</b>	155.9	108.1

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>2409</b>	1427	12991
Particles >6µm	ASTM D7647	>2500	<b>527</b>	203	524
Particles >14µm	ASTM D7647	>320	<b>33</b>	21	15
Particles >21µm	ASTM D7647	>80	<b>9</b>	7	4
Particles >38µm	ASTM D7647	>20	<b>1</b>	0	0
Particles >71µm	ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>21/18/15	<b>18/16/12</b>	18/15/12	21/16/11



# OIL ANALYSIS REPORT

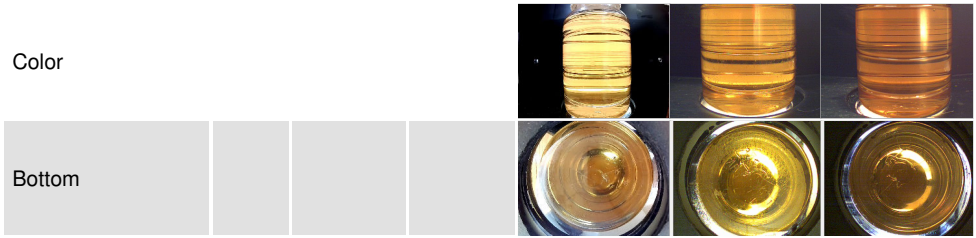


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.20	<b>0.14</b>	0.17	0.205

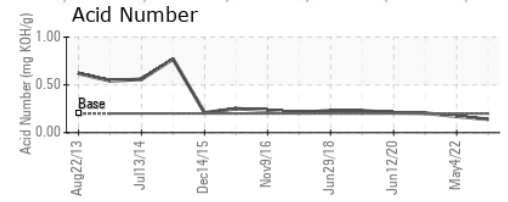
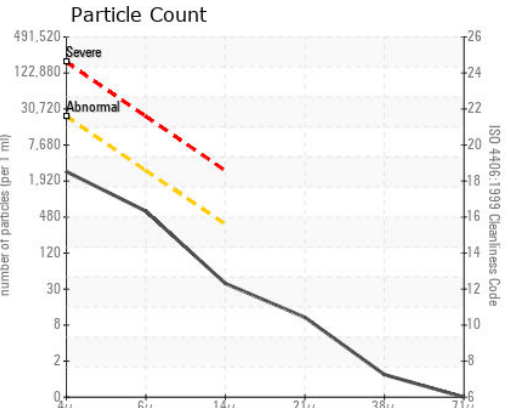
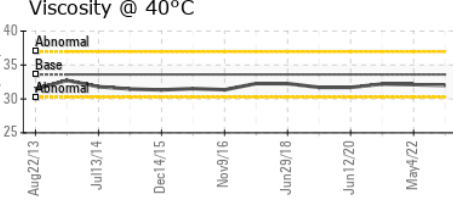
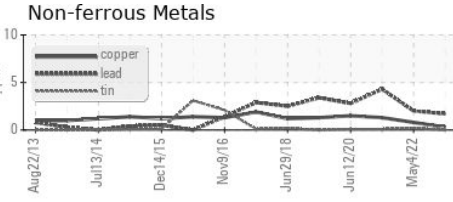
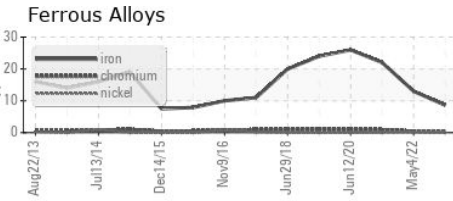
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	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	>0.05	<b>NEG</b>	NEG	NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	33.6	<b>32.0</b>	32.1	32.2

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : NX05928168 **Received** : 18 Aug 2023  
**Lab Number** : **05928168** **Diagnosed** : 21 Aug 2023  
**Unique Number** : 10608115 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PQ )

**NORDEX USA - HIGHLAND & HIGHLAND NORTH**  
 300 SOUTH WACKER DRIVE, SUITE 1500  
 CHICAGO, IL  
 US 60606  
 Contact: Robert Warner  
 rwarner@everpower.com

Certificate L2367  
 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: x:  
 F: x: