

# **OIL ANALYSIS REPORT**

Area HINO [600380360] 35WEA81853 Component

Hydraulic System Fluid SHELL TELLUS ARTIC 32 (--- LTR)

#### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

#### Wear

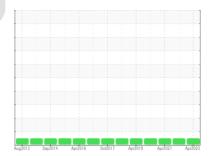
All component wear rates are normal.

#### Contamination

The amount and size of particulates present in the system are acceptable. 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.



Sample Rating Trend



NORMAL

		Aug2013	Sep2014 Apr2016	Oct2017 Apr2019 Apr2021	Apr2023	
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		NX05928151	NX05602810	NX05387366
Sample Date		Client Info		19 Apr 2023	06 May 2022	05 Apr 2021
Machine Age	mths	Client Info		0	0	0
Oil Age	mths	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		12	16	18
Iron	ppm	ASTM D5185m	>20	8	7	8
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>20	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>20	0	0	<1
Lead	ppm	ASTM D5185m	>20	<1	<1	<1
Copper	ppm	ASTM D5185m	>20	0	<1	<1
Tin	ppm	ASTM D5185m	>20	1	1	<1
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	<1
Manganese	ppm	ASTM D5185m	0	0	0	<1
Magnesium	ppm	ASTM D5185m	0	<1	0	<1
Calcium	ppm	ASTM D5185m	5	0	0	0
Phosphorus	ppm	ASTM D5185m	600	564	558	524
Zinc	ppm	ASTM D5185m	50	69	66	77
Sulfur	ppm	ASTM D5185m	900	654	745	700
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	4	4	5
Sodium	ppm	ASTM D5185m		0	0	<1
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water	%	ASTM D6304	>0.05	0.012	0.017	0.010
ppm Water	ppm	ASTM D6304	>500	129.6	178.1	102.3
FLUID CLEANLINI	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	1101	2731	1231
			>2500		274	256
Particles Shum		A311VL1/04/		209		
Particles >6µm Particles >14µm		ASTM D7647		209 12		
Particles >14µm		ASTM D7647	>320	12	11	24
Particles >14μm Particles >21μm		ASTM D7647 ASTM D7647	>320 >80	12 3	11 3	24 6
Particles >14µm Particles >21µm Particles >38µm		ASTM D7647 ASTM D7647 ASTM D7647	>320 >80 >20	12 3 0	11 3 0	24 6 0
Particles >14μm Particles >21μm		ASTM D7647 ASTM D7647	>320 >80	12 3	11 3	24 6



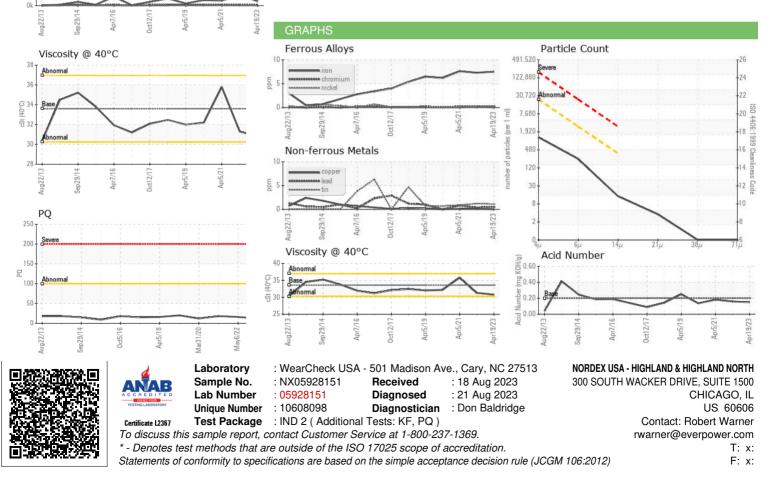
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FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.20	0.15	0.16	0.183
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	33.6	30.8	31.3	35.8
SAMPLE IMAGES	S	method	limit/base	current	historv1	historv2





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Contact/Location: Robert Warner - NORHIG