



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HPU TOWPIN/SHARK JAW
Component
Hydraulic System
Fluid
CASTROL HYSPIN AWH-M ISO 32 (450 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MAR 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid. this testkit includes AN to determine the suitability of the oil for continued use.

WEAR

All component wear rates are normal.

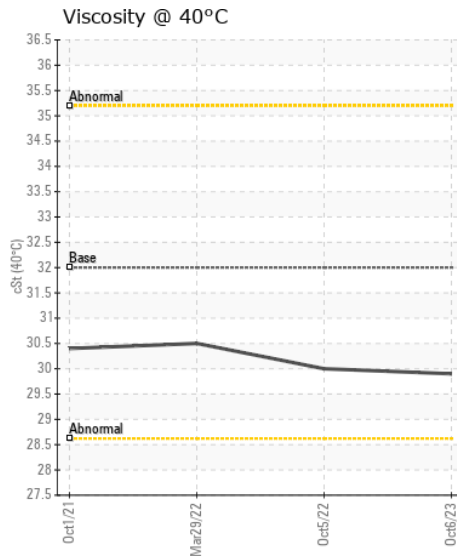
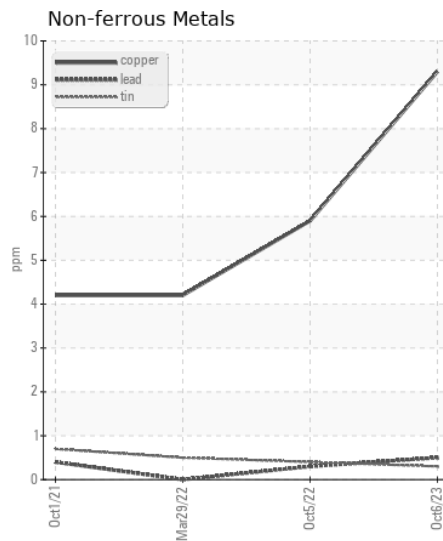
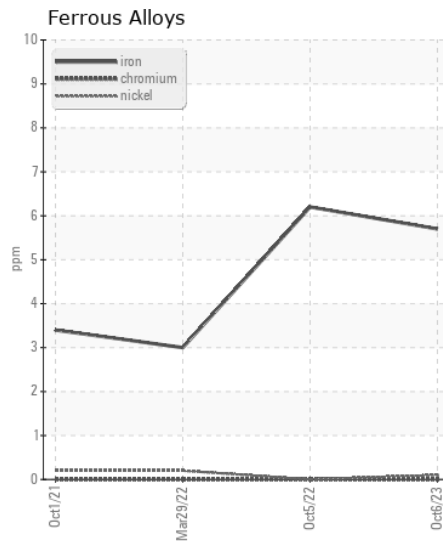
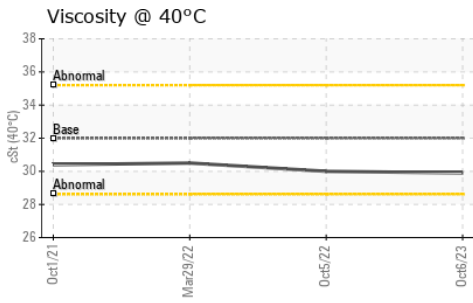
CONTAMINATION

There is no indication of any contamination in the component(unconfirmed).

FLUID CONDITION

The condition of the oil is acceptable for the time in service (unconfirmed).

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0773490	WC0713690	WC0643507
Sample Date		Client Info		06 Oct 2023	05 Oct 2022	29 Mar 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>20	6	6	3
Chromium	ppm	ASTM D5185(m)	>10	0	0	0
Nickel	ppm	ASTM D5185(m)	>10	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	0	0
Aluminum	ppm	ASTM D5185(m)	>10	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>10	<1	<1	0
Copper	ppm	ASTM D5185(m)	>75	9	6	4
Tin	ppm	ASTM D5185(m)	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>20	<1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	17	2	1
Water		WC Method	>0.1	NEG	NEG	NEG
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*	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		25	27	15
Boron	ppm	ASTM D5185(m)		<1	<1	<1
Barium	ppm	ASTM D5185(m)		<1	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		6	7	4
Calcium	ppm	ASTM D5185(m)		40	40	39
Phosphorus	ppm	ASTM D5185(m)		397	423	406
Zinc	ppm	ASTM D5185(m)		485	472	483
Sulfur	ppm	ASTM D5185(m)		3048	3201	3109
Visc @ 40°C	cSt	ASTM D7279(m)	32.0	29.9	30.0	30.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Horizon Maritime Services Ltd. - Horizon Arctic
Sample No. : WC0773490 **Received** : 20 Oct 2023 87 WATER STREET,, 2ND FLOOR
Lab Number : 02590622 **Diagnosed** : 20 Oct 2023 ST. JOHNS, NL
Unique Number : 5659688 **Diagnostician** : Wes Davis CA A1C 1A5
Test Package : MAR 1

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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