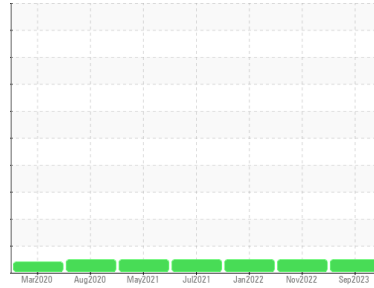




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



## Machine Id HYDRAULIC SYSTEM

Component  
**Main Hydraulic System**

Fluid  
**MOBIL DTE 10 EXCEL 32 (300 LTR)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness 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>WC0732102</b>	WC0732099	WC0616896
Sample Date	Client Info			<b>18 Sep 2023</b>	29 Nov 2022	13 Jan 2022
Machine Age	hrs	Client Info		<b>1313</b>	1110	844
Oil Age	hrs	Client Info		<b>1313</b>	1110	844
Oil Changed	Client Info			<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Lead	ppm	ASTM D5185(m)	>20	<b>1</b>	<1	0
Copper	ppm	ASTM D5185(m)	>20	<b>9</b>	7	4
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>3</b>	2	3
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)		<b>2</b>	2	2
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>10</b>	12	13
Calcium	ppm	ASTM D5185(m)	120	<b>135</b>	151	138
Phosphorus	ppm	ASTM D5185(m)	475	<b>357</b>	403	372
Zinc	ppm	ASTM D5185(m)		<b>263</b>	309	353
Sulfur	ppm	ASTM D5185(m)	1275	<b>1235</b>	1237	1180
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>2</b>	1	1
Sodium	ppm	ASTM D5185(m)		<b>8</b>	2	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>17</b>	2	1

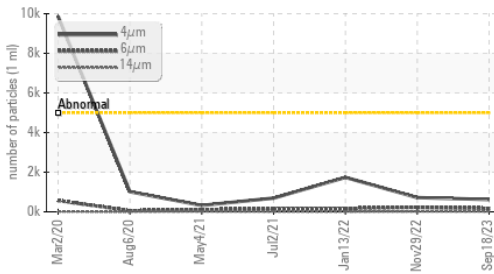
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>620</b>	718	1739
Particles >6µm		ASTM D7647	>1300	<b>172</b>	223	167
Particles >14µm		ASTM D7647	>160	<b>13</b>	15	10
Particles >21µm		ASTM D7647	>40	<b>3</b>	3	3
Particles >38µm		ASTM D7647	>10	<b>1</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>16/15/11</b>	17/15/11	18/15/10

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>0.45</b>	0.50	0.41

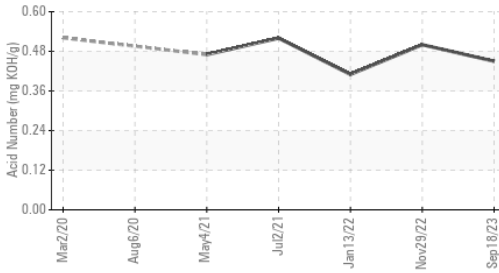


# OIL ANALYSIS REPORT

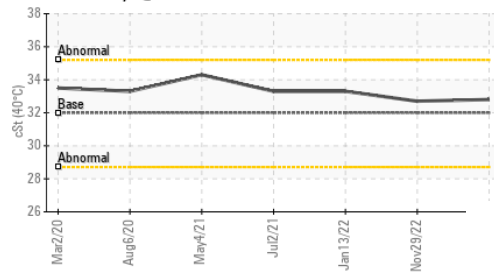
Particle Trend



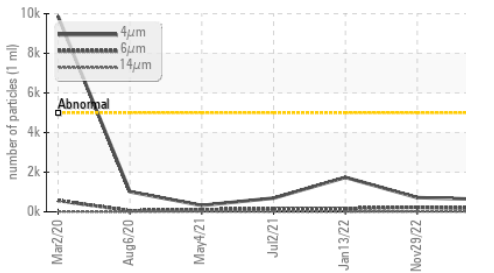
Acid Number



Viscosity @ 40°C



Particle Trend

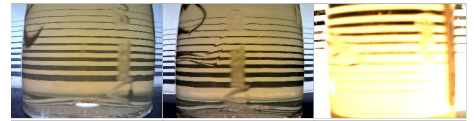


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	32.8	32.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

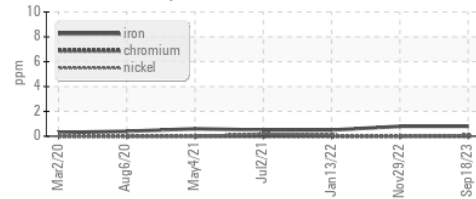


Bottom

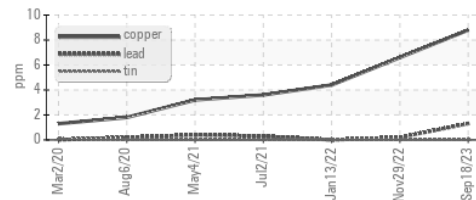


## GRAPHS

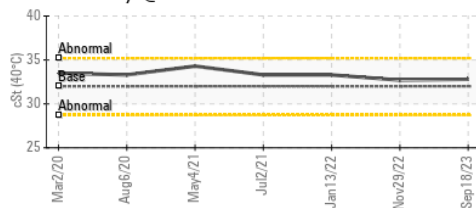
Ferrous Alloys



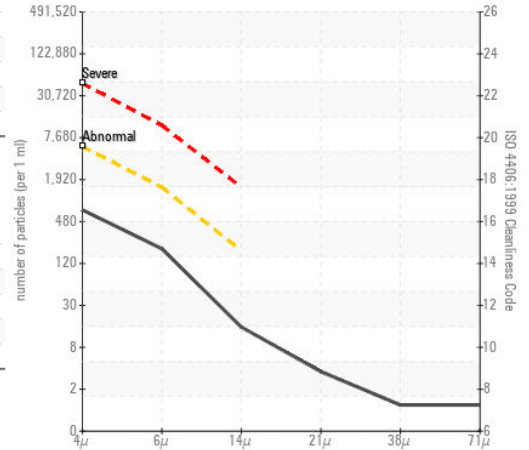
Non-ferrous Metals



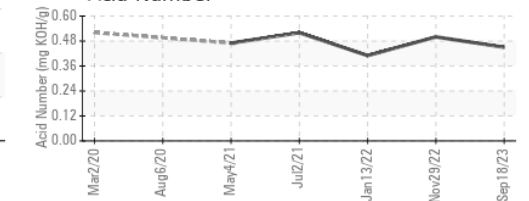
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
 Sample No. : WC0732102  
 Lab Number : 02587330  
 Unique Number : 5656396  
 Test Package : MAR 2 ( Additional Tests: TAN Man )

**CANADIAN COAST GUARD**  
 CCGS CONCEPTION BAY, 280 SOUTHSIDE RD, BOX 5667  
 ST. JOHN'S, NL  
 CA A1C 5X1  
 Contact: Chief Engineer  
 CCG.ConceptionBayCE-BaiedeConceptionLE.GCC@dio-mpo.gc.ca  
 T: 1(709)884-8513  
 F:

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.