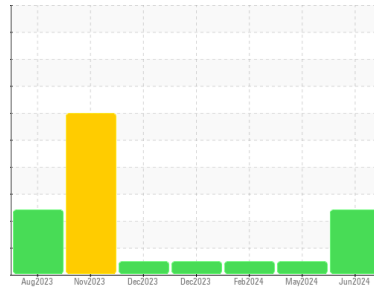




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
EPIROC ST18 SCP202
 Component
Diesel Engine
 Fluid
MOBIL 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Test for glycol is positive. There is a light concentration of glycol present in the oil. There is a moderate concentration of water present in the oil.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0937740	WC0937724	WC0883866
Sample Date	Client Info			14 Jun 2024	22 May 2024	13 Feb 2024
Machine Age	hrs	Client Info		3806	3570	0
Oil Age	hrs	Client Info		250	250	0
Oil Changed	Client Info			N/A	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>5	<1.0	<1.0	<1.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	13	15	11
Chromium	ppm	ASTM D5185(m)	>20	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	3	3
Lead	ppm	ASTM D5185(m)	>40	9	23	23
Copper	ppm	ASTM D5185(m)	>330	15	22	16
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Antimony	ppm	ASTM D5185(m)		<1	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

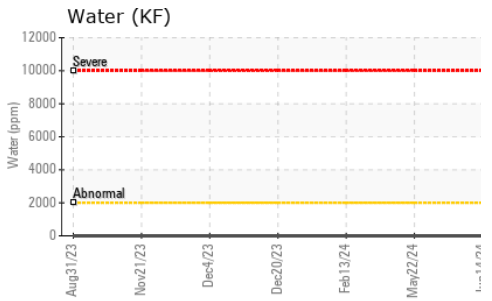
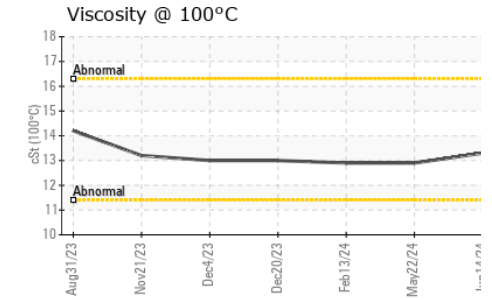
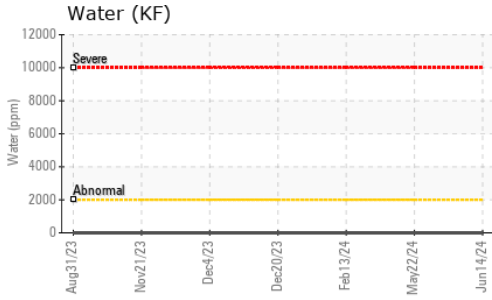
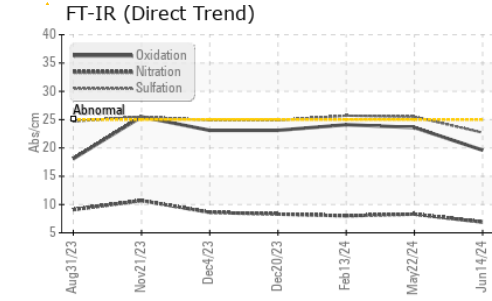
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		105	68	38
Barium	ppm	ASTM D5185(m)		2	<1	0
Molybdenum	ppm	ASTM D5185(m)		17	31	41
Manganese	ppm	ASTM D5185(m)		2	1	0
Magnesium	ppm	ASTM D5185(m)		213	394	508
Calcium	ppm	ASTM D5185(m)		1848	1838	1686
Phosphorus	ppm	ASTM D5185(m)		779	800	741
Zinc	ppm	ASTM D5185(m)		989	968	869
Sulfur	ppm	ASTM D5185(m)		2343	2159	2082
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	16	9	4
Sodium	ppm	ASTM D5185(m)	>118	6	9	8
Potassium	ppm	ASTM D5185(m)	>20	4	2	2
Water	%	ASTM D6304*	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		▲ 0.01	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	6.9	8.3	8.0
Sulfation	Abs./1mm	ASTM D7415*	>30	22.7	25.5	25.7



OIL ANALYSIS REPORT

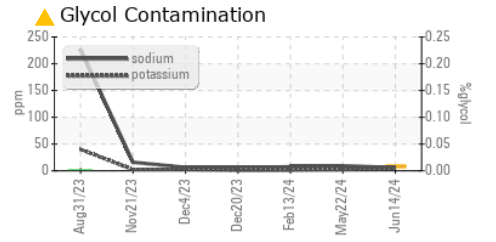
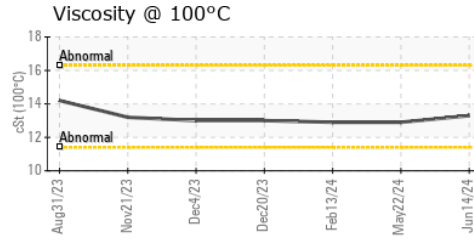
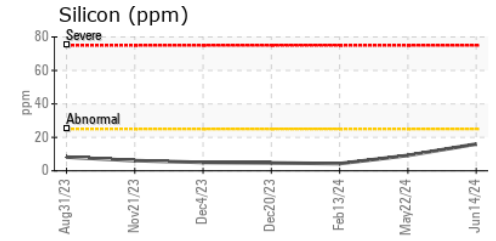
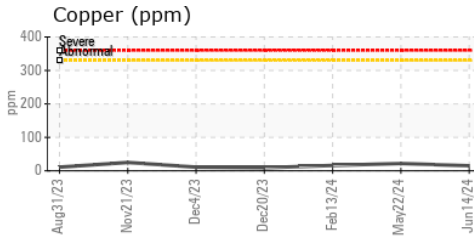
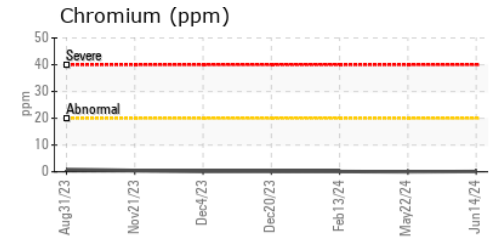
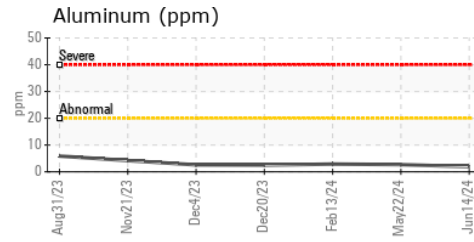
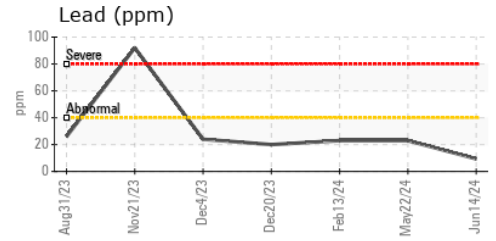
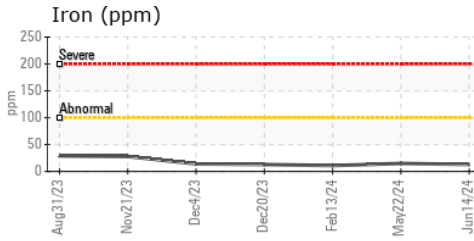


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	19.6	23.6	24.1

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	VLITE	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*	>0.2	▲.5%	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	13.3	12.9	12.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0937740
Lab Number : 02643673
Unique Number : 5801212
Test Package : MOB 1 (Additional Tests: Glycol, KF, Visual)

Agnico Eagle Canada
 1350 Government Rd. W, MACASSA COMPLEX
 Kirkland Lake, ON
 CA P2N 3J1

Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 26 Jun 2024 - Kevin Marson
 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.

Contact: Mitch Lamontagne
 AEM_KL_macassaoilsamplesresults@agnicoeagle.com
 T: (705)567-5208
 F: (705)567-5221