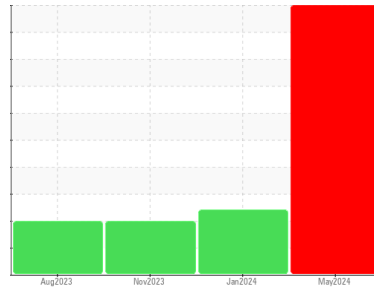




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
WEICHAI J-BEND WEICHAI
 Component
Propane Engine
 Fluid
PETRO CANADA SENTRON LD 5000 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. 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 high 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		WC0915627	PC0078883	PC0078878
Sample Date	Client Info		14 May 2024	31 Jan 2024	01 Nov 2023
Machine Age	hrs	Client Info	12500	11972	11457
Oil Age	hrs	Client Info	528	515	546
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	6	7	5
Chromium	ppm	ASTM D5185(m) >25	0	0	0
Nickel	ppm	ASTM D5185(m) >5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m) >5	0	0	<1
Aluminum	ppm	ASTM D5185(m) >20	4	4	3
Lead	ppm	ASTM D5185(m) >25	2	2	3
Copper	ppm	ASTM D5185(m) >35	17	24	▲ 59
Tin	ppm	ASTM D5185(m) >8	0	0	0
Antimony	ppm	ASTM D5185(m)	0	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) 2	38	22	14
Barium	ppm	ASTM D5185(m) 3	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	<1	0
Manganese	ppm	ASTM D5185(m) 0	<1	0	0
Magnesium	ppm	ASTM D5185(m) 4	7	10	7
Calcium	ppm	ASTM D5185(m) 1727	1420	1502	1098
Phosphorus	ppm	ASTM D5185(m) 272	335	346	620
Zinc	ppm	ASTM D5185(m) 333	412	422	816
Sulfur	ppm	ASTM D5185(m) 3415	2706	2789	2373
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	15	11	11
Sodium	ppm	ASTM D5185(m)	● 731	▲ 457	● 328
Potassium	ppm	ASTM D5185(m) >20	▲ 30	▲ 17	12
Water	%	ASTM D6304* >0.1	▲ 0.371	---	---
ppm Water	ppm	ASTM D6304* >1000	▲ 3717	---	---
Glycol	%	ASTM D7922*	▲ 0.499	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	0	0
Nitration	Abs/cm	ASTM D7624* >20	7.8	7.0	6.7
Sulfation	Abs/.1mm	ASTM D7415* >30	15.8	17.2	18.4

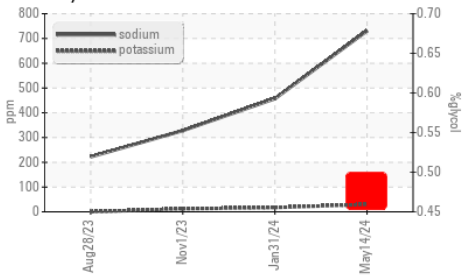
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	9.9	10.1	11.1

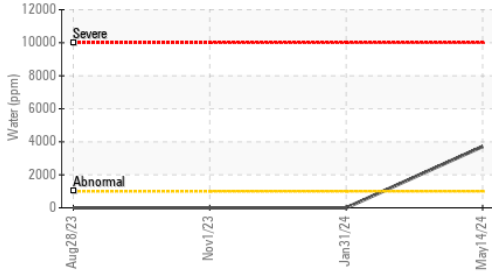


OIL ANALYSIS REPORT

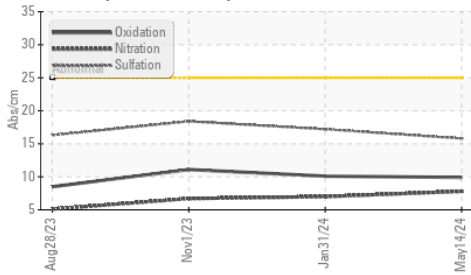
▲ Glycol Contamination



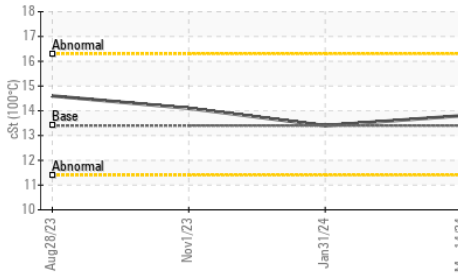
▲ Water (KF)



FT-IR (Direct Trend)



Viscosity @ 100°C

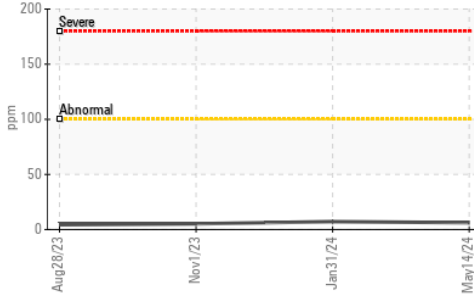


VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1 ▲ .2%	NEG	NEG
Free Water	scalar	Visual*	NEG	NEG	NEG

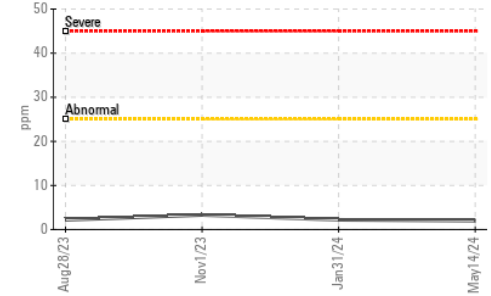
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	13.4 13.8	13.4	14.1

GRAPHS

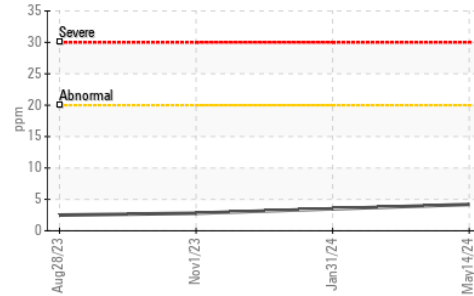
Iron (ppm)



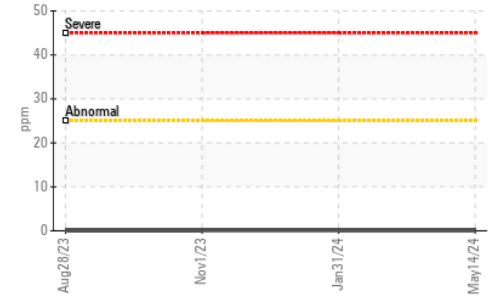
Lead (ppm)



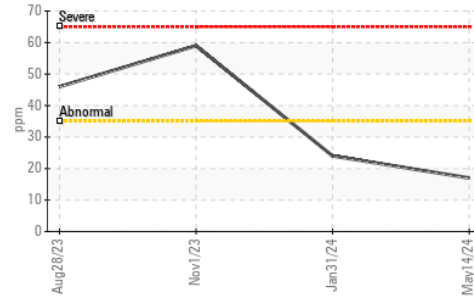
Aluminum (ppm)



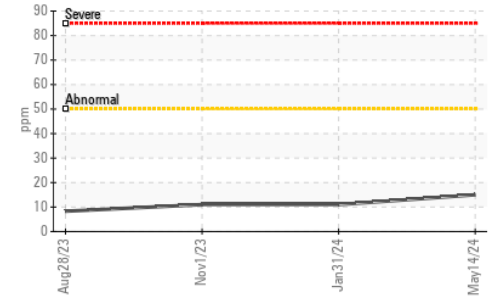
Chromium (ppm)



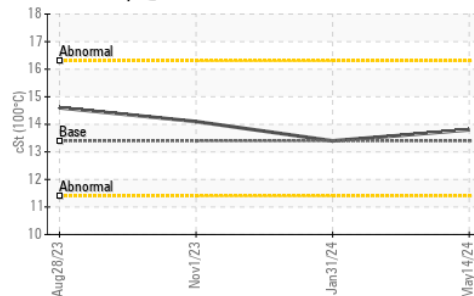
Copper (ppm)



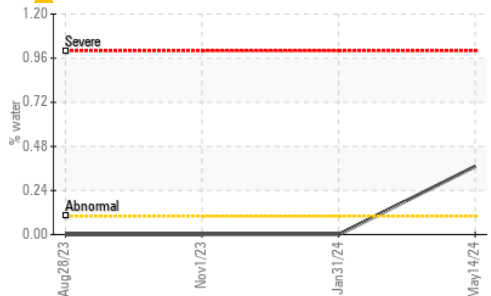
Silicon (ppm)



Viscosity @ 100°C



Water



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0915627 **Received** : 11 Jul 2024
Lab Number : **02647336** **Tested** : 16 Jul 2024
Unique Number : 5812888 **Diagnosed** : 16 Jul 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: GLYCOL, KF)

Martin Energy Group Canada
 5531 Schummer Line
 Linwood, ON
 CA N0B 2A0
 Contact: J Wagler
 jwagler@martinenergygroup.com

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.