



OIL ANALYSIS REPORT

Sample Rating Trend

DEGRADATION

Area

[1329]

Machine Id

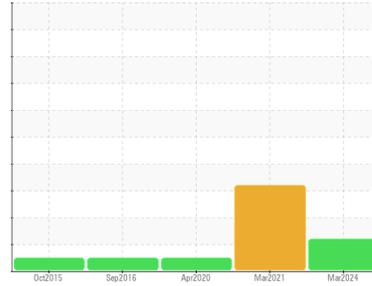
COPELAND 410000011297 COSTCO #151 RACK B (S/N PS2-092-94)

Component

Reciprocating Compressor

Fluid

VIRGINIA KMP VIRGINA ALKYL BENZENE AB-150 (--- GAL)



DIAGNOSIS

Recommendation

The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

The AN level is slightly above the recommended limit. The oil viscosity is lower than typical, possibly indicating the addition of lighter grade oil. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. The oil is no longer serviceable.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0907695	WC0553267	WC0463203
Sample Date	Client Info		24 Mar 2024	02 Mar 2021	29 Apr 2020
Machine Age	yrs	Client Info	0	25	336
Oil Age	yrs	Client Info	0	3	24
Oil Changed	Client Info		N/A	Changed	Not Changed
Sample Status			MARGINAL	ABNORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	▲ 134	5
Iron	ppm	ASTM D5185(m) >50	12	11	11
Chromium	ppm	ASTM D5185(m) >10	0	<1	<1
Nickel	ppm	ASTM D5185(m)	0	0	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	<1	0
Aluminum	ppm	ASTM D5185(m) >25	<1	1	<1
Lead	ppm	ASTM D5185(m) >25	0	0	0
Copper	ppm	ASTM D5185(m) >50	4	<1	<1
Tin	ppm	ASTM D5185(m) >15	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	0	0	<1
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)	<1	1	<1
Barium	ppm	ASTM D5185(m)	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	<1	<1	0
Calcium	ppm	ASTM D5185(m)	2	0	<1
Phosphorus	ppm	ASTM D5185(m)	1	122	491
Zinc	ppm	ASTM D5185(m)	3	1	2
Sulfur	ppm	ASTM D5185(m)	27	70	33
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

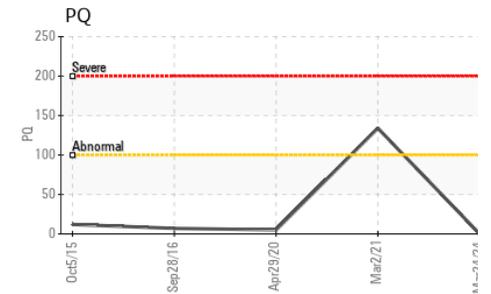
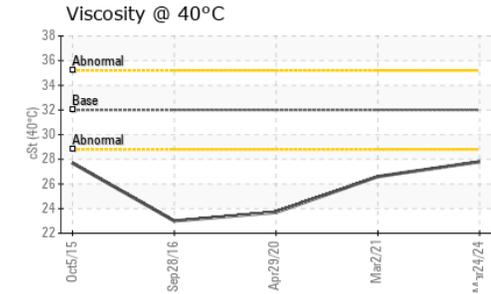
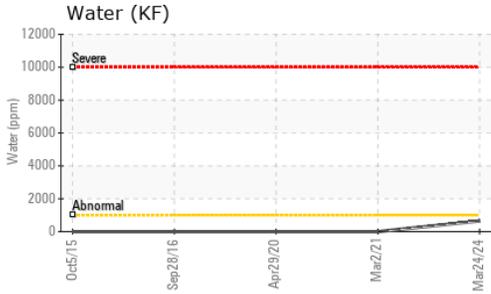
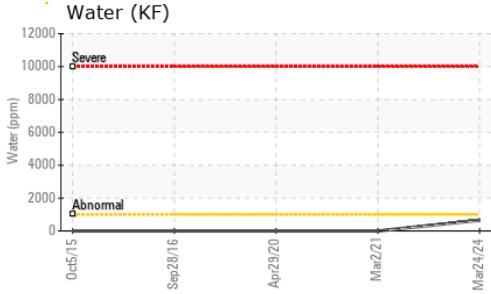
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	3	4	14
Sodium	ppm	ASTM D5185(m)	<1	0	0
Potassium	ppm	ASTM D5185(m) >20	<1	<1	<1
Water	%	ASTM D6304* >0.1	0.065	---	---
ppm Water	ppm	ASTM D6304* >1000	653	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.01	▲ 0.12	0.02	0.04



OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	▲ LIGHT	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	VLITE	VLITE	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	.2%	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	32	27.8	26.6	23.7

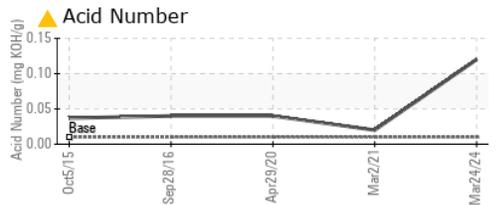
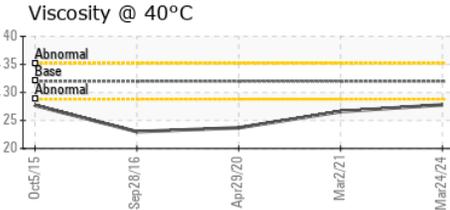
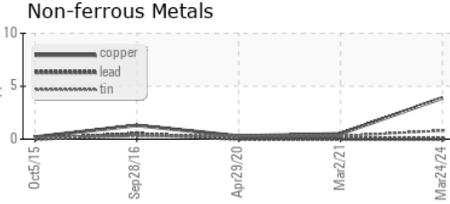
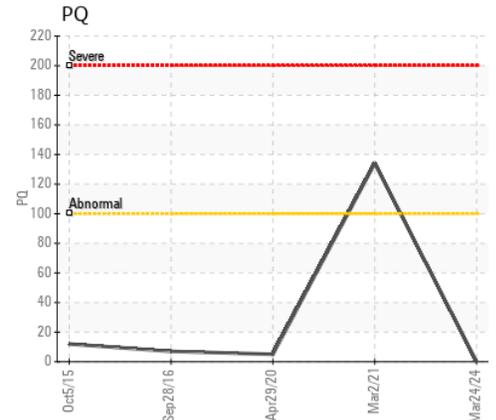
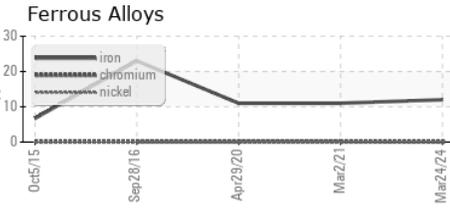
SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

Bottom

PrtFilter

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0907695 **Received** : 25 Mar 2024
Lab Number : **02624249** **Tested** : 27 Mar 2024
Unique Number : 5749368 **Diagnosed** : 27 Mar 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: KF, TAN Man)

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 Burlington, ON
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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.