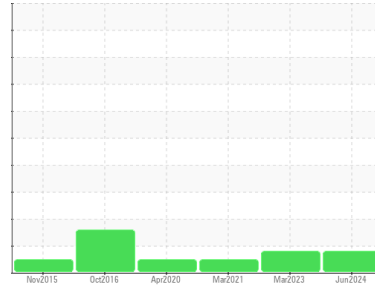




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area

[001355-1]

Machine Id

HUSSMAN COSTCO 535 RACK B (S/N 12228500)

Component

Reciprocating Compressor

Fluid

EMKARATE RL 32H (12 GAL)

DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition.

Wear

Iron ppm levels are marginal. All other 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 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		WC0912814	WC0794373	WC0556281
Sample Date	Client Info		11 Jun 2024	01 Mar 2023	05 Mar 2021
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			MARGINAL	MARGINAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m) >50	▲ 52	▲ 50	15
Chromium	ppm	ASTM D5185(m) >10	0	<1	<1
Nickel	ppm	ASTM D5185(m)	0	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	<1
Aluminum	ppm	ASTM D5185(m) >25	<1	5	<1
Lead	ppm	ASTM D5185(m) >25	<1	<1	<1
Copper	ppm	ASTM D5185(m) >50	6	1	5
Tin	ppm	ASTM D5185(m) >15	1	2	<1
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) 0	2	2	1
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m)	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 0	0	0	0
Calcium	ppm	ASTM D5185(m) 0	0	0	0
Phosphorus	ppm	ASTM D5185(m) 5	<1	0	<1
Zinc	ppm	ASTM D5185(m) 10	27	23	13
Sulfur	ppm	ASTM D5185(m) 50	372	260	10
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

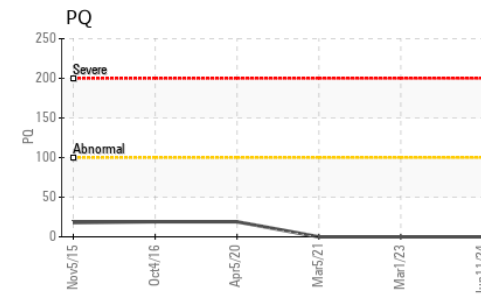
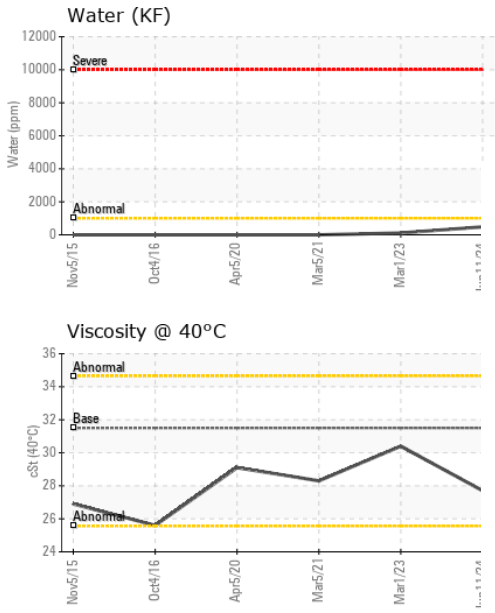
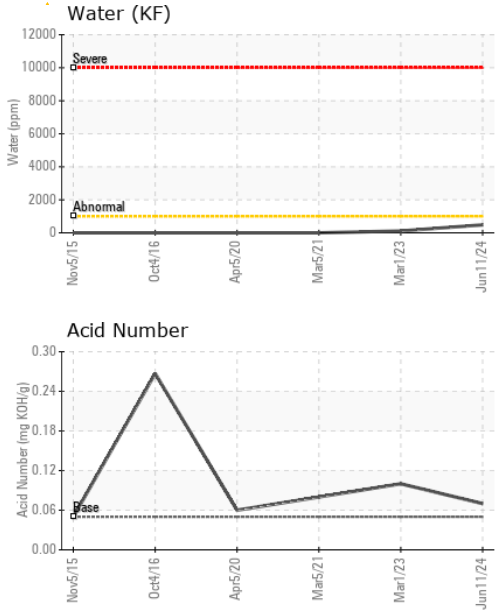
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	3	5	1
Sodium	ppm	ASTM D5185(m)	<1	<1	0
Potassium	ppm	ASTM D5185(m) >20	0	<1	<1
Water	%	ASTM D6304* >0.1	0.048	0.011	---
ppm Water	ppm	ASTM D6304* >1000	483	110.5	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* .05	0.07	0.10	0.08



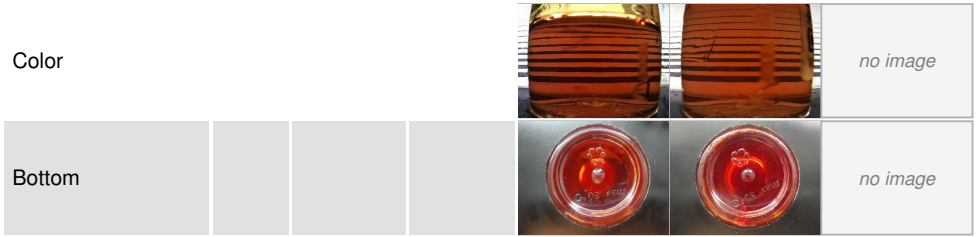
OIL ANALYSIS REPORT



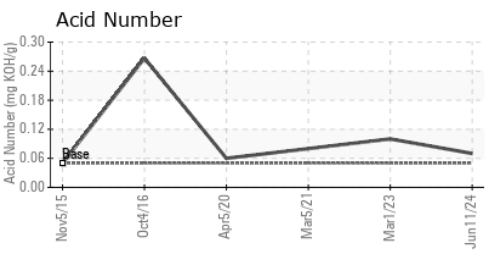
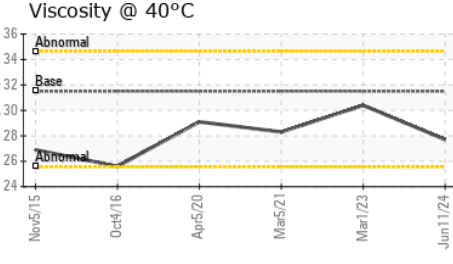
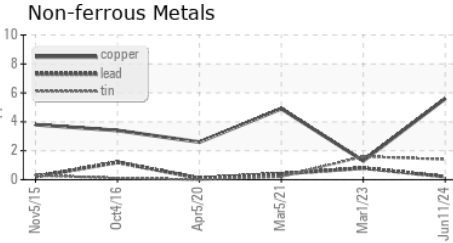
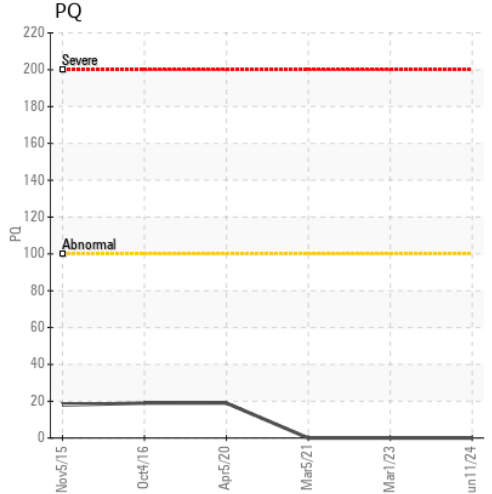
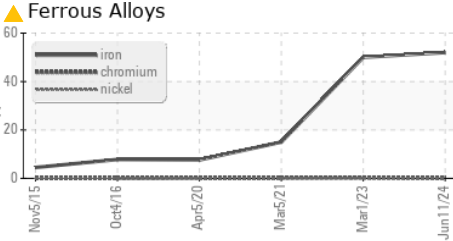
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	FREON	FREON
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	31.5	27.7	30.4	28.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0912814 **Received** : 12 Jun 2024
Lab Number : 02641427 **Tested** : 14 Jun 2024
Unique Number : 5798966 **Diagnosed** : 14 Jun 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: KF, TAN Man)

Neelands Group Limited
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 Burlington, ON
 CA L7M 0V9
 Contact: Mike Squires
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 T: (905)975-0794
 F: (905)334-7090

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.