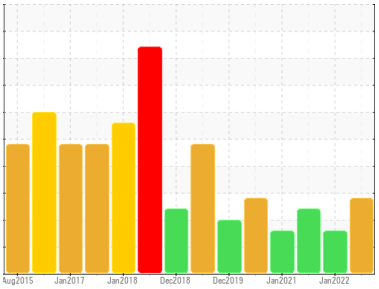
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
NCH G TUBR
Component
Bearing
Fluid
ESSO TERESSO ISO 68 (55 LTR)

DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

Wear

All component wear rates are normal.

Contamination

Silicon ppm levels are abnormally high. Particles >4µm are abnormally high. Particles >6µm and oil cleanliness are abnormally high. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0445174**	WC0445190	WC0327864
Sample Date		Client Info		**14 Dec 2023**	17 Jan 2022	14 Jun 2021
Machine Age	days	Client Info		**0**	0	0
Oil Age	days	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	0	0
Iron	ppm	ASTM D5185(m)	>63	**4**	3	2
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>2	**<1**	<1	<1
Lead	ppm	ASTM D5185(m)	>161	**16**	18	15
Copper	ppm	ASTM D5185(m)	>13	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>27	**<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)	4.5	**0**	<1	<1
Barium	ppm	ASTM D5185(m)	0.4	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Calcium	ppm	ASTM D5185(m)	0	**<1**	2	2
Phosphorus	ppm	ASTM D5185(m)	0.7	**15**	5	1
Zinc	ppm	ASTM D5185(m)	0	**10**	4	4
Sulfur	ppm	ASTM D5185(m)	1315	**1988**	1881	1865
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>12	▲ **19**	▲ 20	▲ 20
Sodium	ppm	ASTM D5185(m)		**1**	2	2
Potassium	ppm	ASTM D5185(m)	>20	**<1**	1	<1

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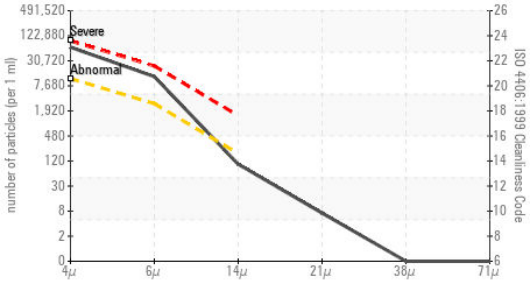
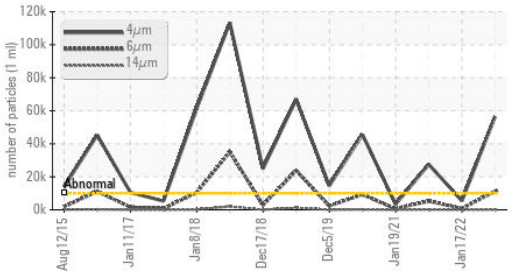
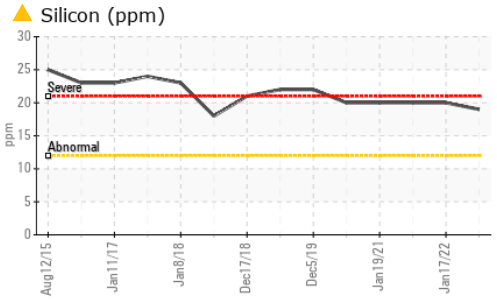
Particle Count



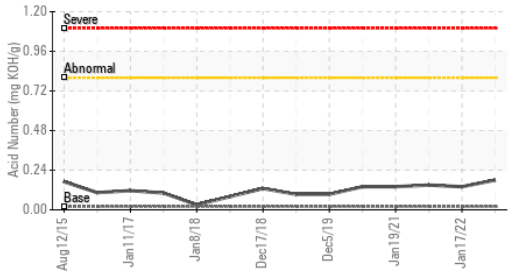
Particle Trend



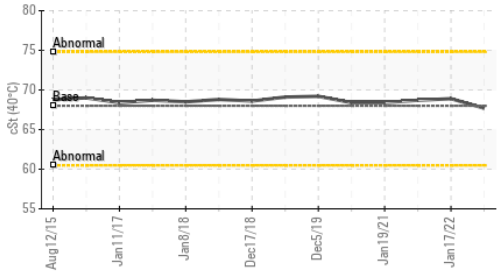
Silicon (ppm)



Acid Number



Viscosity @ 40°C



FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **56435**	5419	▲ 27510
Particles >6µm		ASTM D7647	>2500	▲ **11143**	742	▲ 5296
Particles >14µm		ASTM D7647	>160	**89**	51	141
Particles >21µm		ASTM D7647	>40	**6**	17	23
Particles >38µm		ASTM D7647	>10	**0**	2	1
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/14	▲ **23/21/14**	20/17/13	▲ 22/20/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.02	**0.18**	0.14	0.15

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*	>2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68	**67.7**	68.9	68.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0445174 **Recieved** : 22 Dec 2023
Lab Number : 02605000 **Diagnosed** : 28 Dec 2023
Unique Number : 5698085 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: PQ, PrtCount, TAN Man)

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.

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