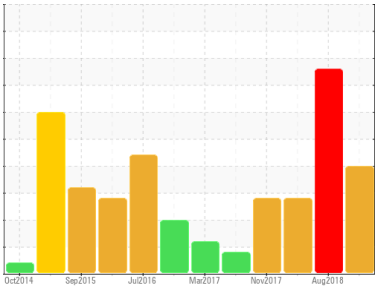
PROBLEM SUMMARY

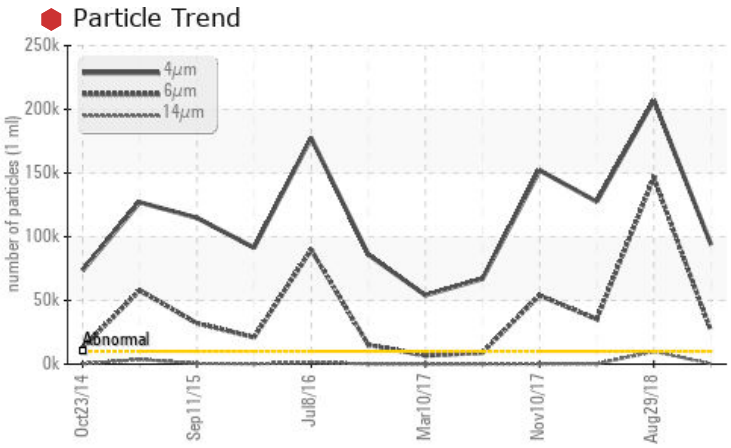
Area
CHIQUITA TROPICAL INGREDIENTS SA (MUNDIMAR)
Machine Id
HOWDEN COMPRESSOR HOWDEN 1PD (AF1180)
Component
Compressor
Fluid
PETRO CANADA REFLO 68A AMMONIA OIL (75 GAL)

Sample Rating Trend



ISO

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Check seals and/or filters for points of contaminant entry. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Particles >4µm		ASTM D7647	>10000	**93904**	207154	127486
Particles >6µm		ASTM D7647	>2500	**26074**	146370	35276
Particles >14µm		ASTM D7647	>320	**366**	9934	304
Oil Cleanliness		ISO 4406 (c)	>20/18/15	**24/22/16**	25/24/20	24/22/15

Customer Id: INDALA
Sample No.: PC0077175
Lab Number: 02562227
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Check Breathers	---	---	?	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.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

ISO

29 Aug 2018 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. 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.Iron ppm levels are marginal. All other component wear rates are normal. Particles >14µm are severely high. Particles >21µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. The AN level is acceptable for this fluid. The water concentration level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

ISO

03 May 2018 Diag: Bill Quesnel

Check seals and/or filters for points of contaminant entry. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.All component wear rates are normal. Particles >6µm are severely high. Particles >4µm are severely high. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

ISO

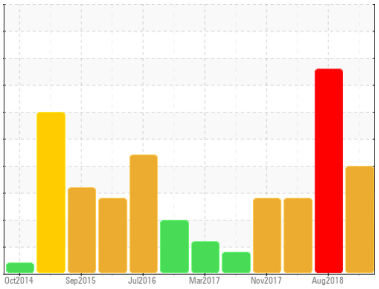
10 Nov 2017 Diag: Bill Quesnel

Check seals and/or filters for points of contaminant entry. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.All component wear rates are normal. Particles >6µm are severely high. Particles >4µm are severely high. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

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DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

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		**PC0077175**	PC410516	PC409189
Sample Date		Client Info		**25 May 2023**	29 Aug 2018	03 May 2018
Machine Age	hrs	Client Info		**0**	42030	40961
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	Not Changd	Not Changd
Sample Status				**SEVERE**	SEVERE	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	**7**	▲ 34	7
Chromium	ppm	ASTM D5185(m)	>10	**0**	0	0
Nickel	ppm	ASTM D5185(m)		**0**	0	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	**<1**	0	0
Lead	ppm	ASTM D5185(m)	>25	**0**	2	<1
Copper	ppm	ASTM D5185(m)	>50	**0**	0	<1
Tin	ppm	ASTM D5185(m)	>15	**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**	<1	0

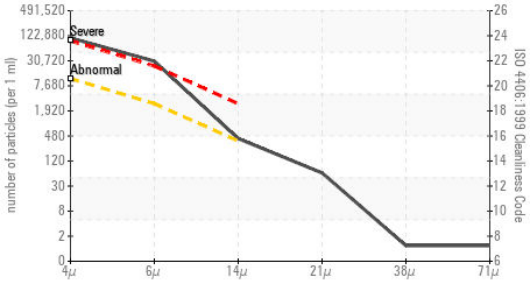
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**<1**	0	0
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	<1	0
Magnesium	ppm	ASTM D5185(m)	0	**<1**	<1	0
Calcium	ppm	ASTM D5185(m)	0	**0**	<1	0
Phosphorus	ppm	ASTM D5185(m)	0	**0**	<1	<1
Zinc	ppm	ASTM D5185(m)	0	**2**	2	1
Sulfur	ppm	ASTM D5185(m)	0	**2**	0	4
Lithium	ppm	ASTM D5185(m)		**<1**	0	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**1**	4	<1
Sodium	ppm	ASTM D5185(m)		**0**	0	0
Potassium	ppm	ASTM D5185(m)	>20	**0**	0	<1
Water	%	ASTM D6304*	>0.1	**0.00**	0.002	0.000
ppm Water	ppm	ASTM D6304*	>1000	**0.00**	28.1	3.4

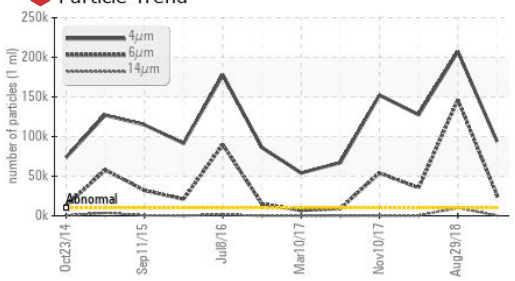
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	● **93904**	● 207154	● 127486
Particles >6µm		ASTM D7647	>2500	● **26074**	● 146370	● 35276
Particles >14µm		ASTM D7647	>320	▲ **366**	● 9934	304
Particles >21µm		ASTM D7647	>80	**55**	● 697	35
Particles >38µm		ASTM D7647	>20	**1**	0	0
Particles >71µm		ASTM D7647	>4	**1**	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	● **24/22/16**	● 25/24/20	● 24/22/15

OIL ANALYSIS REPORT

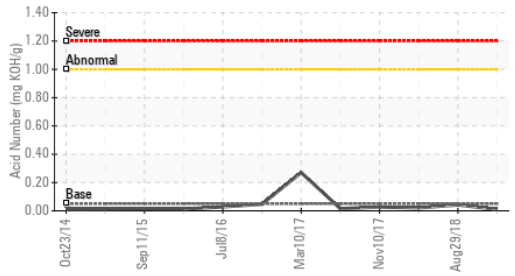
Particle Count



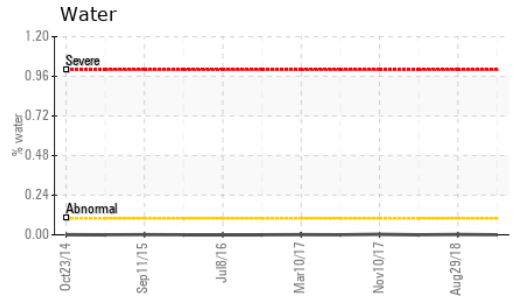
Particle Trend



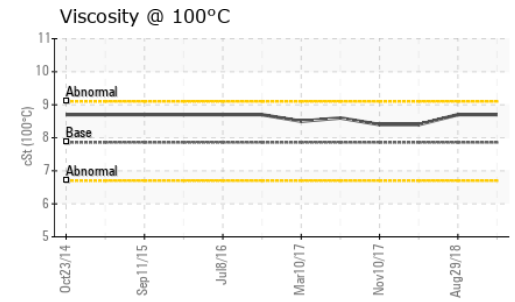
Acid Number



Water



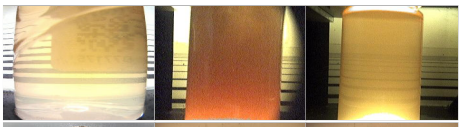
Viscosity @ 100°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.05	**0.01**	0.042	0.021

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	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**	VLITE	VLITE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	AMMON	AMMON
Emulsified Water	scalar	Visual*	>0.1	**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)	57.8	**59.1**	57.7	56.6
Visc @ 100°C	cSt	ASTM D7279(m)	7.86	**8.7**	8.7	8.4
Viscosity Index (VI)	Scale	ASTM D2270*	101	**121**	125	120

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
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ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **INDUSTRIAS del PETROLEO CANAD. SA**
Sample No. : PC0077175 **Received** : 06 Jun 2023
Lab Number : 02562227 **Diagnosed** : 08 Jun 2023
Unique Number : 5591268 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

Contiguo FANAL, frente a la Autopista Bernardo Soto
Grecia, A
CR
Contact: Erick Bogantes
cotizaciones@lubricantescanada.com
T: 1(115)062-1598
F: 1(115)062-2870

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.