



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area PUMPHOUSE/AIR COMPRESSORS

Machine Id C - 3 Air Compressor Turbine OB

Component Lube System

Fluid PETRO CANADA HYDREX AW 100 (2 GAL)

RECOMMENDATION

We advise that you check for the source of water entry. 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 that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0898676	WC0850105	WC0785651
Sample Date		Client Info		10 Jan 2024	16 Aug 2023	27 Jan 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

PQ		ASTM D8184*	>DFLT	16	0	0
Iron	ppm	ASTM D5185(m)	>20	▲ 45	11	14
Chromium	ppm	ASTM D5185(m)	>20	<1	0	0
Nickel	ppm	ASTM D5185(m)	>20	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	0
Lead	ppm	ASTM D5185(m)	>20	2	1	2
Copper	ppm	ASTM D5185(m)	>20	8	15	18
Tin	ppm	ASTM D5185(m)	>20	4	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

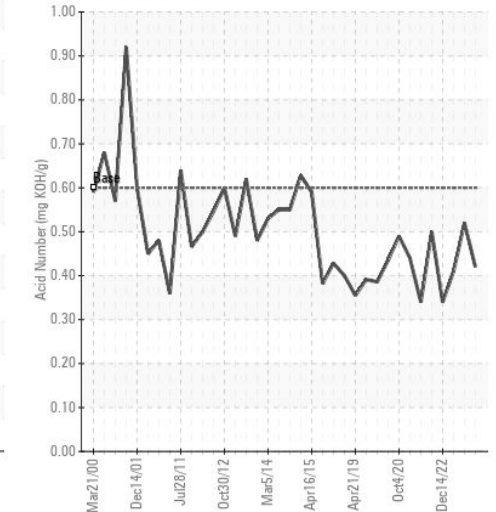
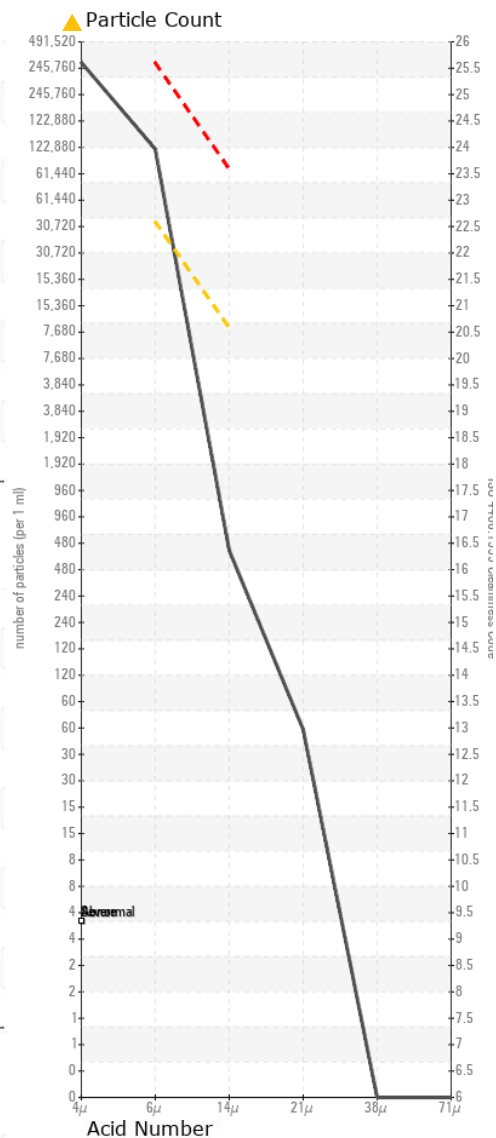
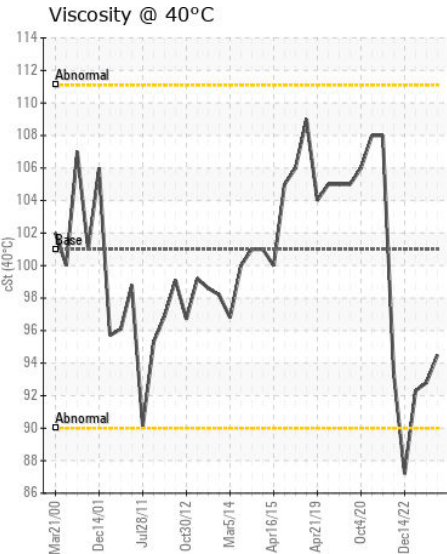
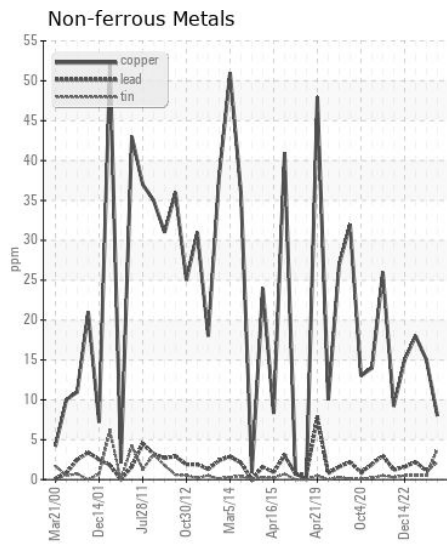
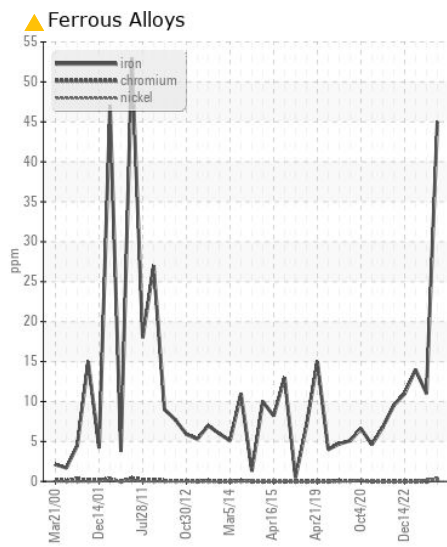
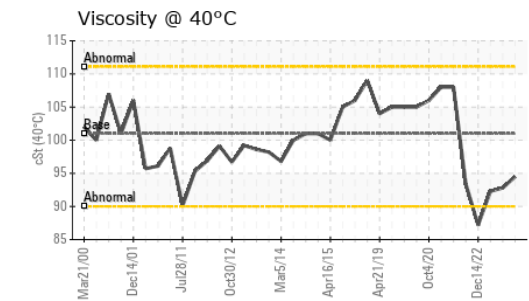
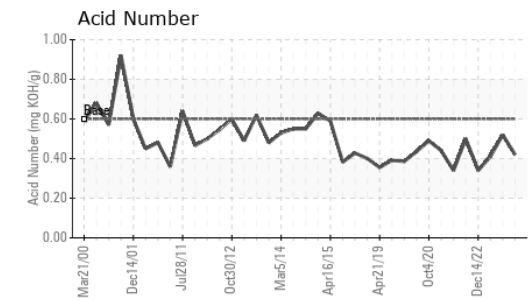
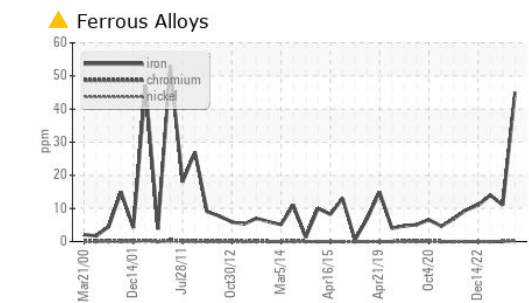
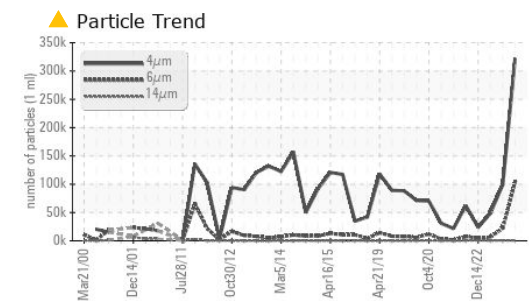
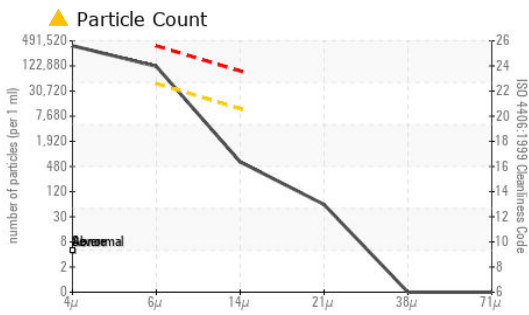
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil. Excessive free water present. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Silicon	ppm	ASTM D5185(m)	>15	7	4	2
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	0
Water		WC Method	>1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		321884	99343	48688
Particles >6µm		ASTM D7647	>40000	▲ 103583	22508	6543
Particles >14µm		ASTM D7647	>10000	543	724	422
Particles >21µm		ASTM D7647	>2500	52	184	112
Particles >38µm		ASTM D7647	>640	0	5	2
Particles >71µm		ASTM D7647	>160	0	1	0
Oil Cleanliness		ISO 4406 (c)	>-/22/20	▲ 26/24/16	24/22/17	23/20/16
Silt	scalar	Visual*	NONE	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	▲ LAYRD	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>1	▲ 1%	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Boron	ppm	ASTM D5185(m)	0	<1	<1	1
Barium	ppm	ASTM D5185(m)	0	<1	<1	7
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	0	3	<1	<1
Calcium	ppm	ASTM D5185(m)	50	59	73	45
Phosphorus	ppm	ASTM D5185(m)	330	343	345	357
Zinc	ppm	ASTM D5185(m)	430	454	458	370
Sulfur	ppm	ASTM D5185(m)	760	2775	2549	2923
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.42	0.52	0.41
Visc @ 40°C	cSt	ASTM D7279(m)	101	94.5	92.8	92.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**
Sample No. : WC0898676 **Received** : 10 Jan 2024 2330 Regional Road #3, Door: BOSC8
Lab Number : 02608055 **Diagnosed** : 15 Jan 2024 NANTICOKE, ON
Unique Number : 5709141 **Diagnostician** : Kevin Marson CA N0A 1L0
Test Package : IND 2 (Additional Tests: PQ)

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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