



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id
12D04#01A - Port Thrust Block (S/N 91257-P8)

Component
Bearing

Fluid
PETRO CANADA HARMONY AW 100 (124 LTR)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0839658	WC0839695	WC0747564
Sample Date		Client Info		18 May 2024	17 May 2024	02 Mar 2024
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		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		None	None	None
Sample Status				ABNORMAL	---	ABNORMAL

WEAR

Copper ppm levels are abnormal. Bearing wear is indicated.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185(m)	>20	1	5	<1
Chromium	ppm	ASTM D5185(m)	>2	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>5	0	0	<1
Lead	ppm	ASTM D5185(m)	>25	0	0	<1
Copper	ppm	ASTM D5185(m)	>5	▲ 8	▲ 8	▲ 7
Tin	ppm	ASTM D5185(m)	>15	5	10	4
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

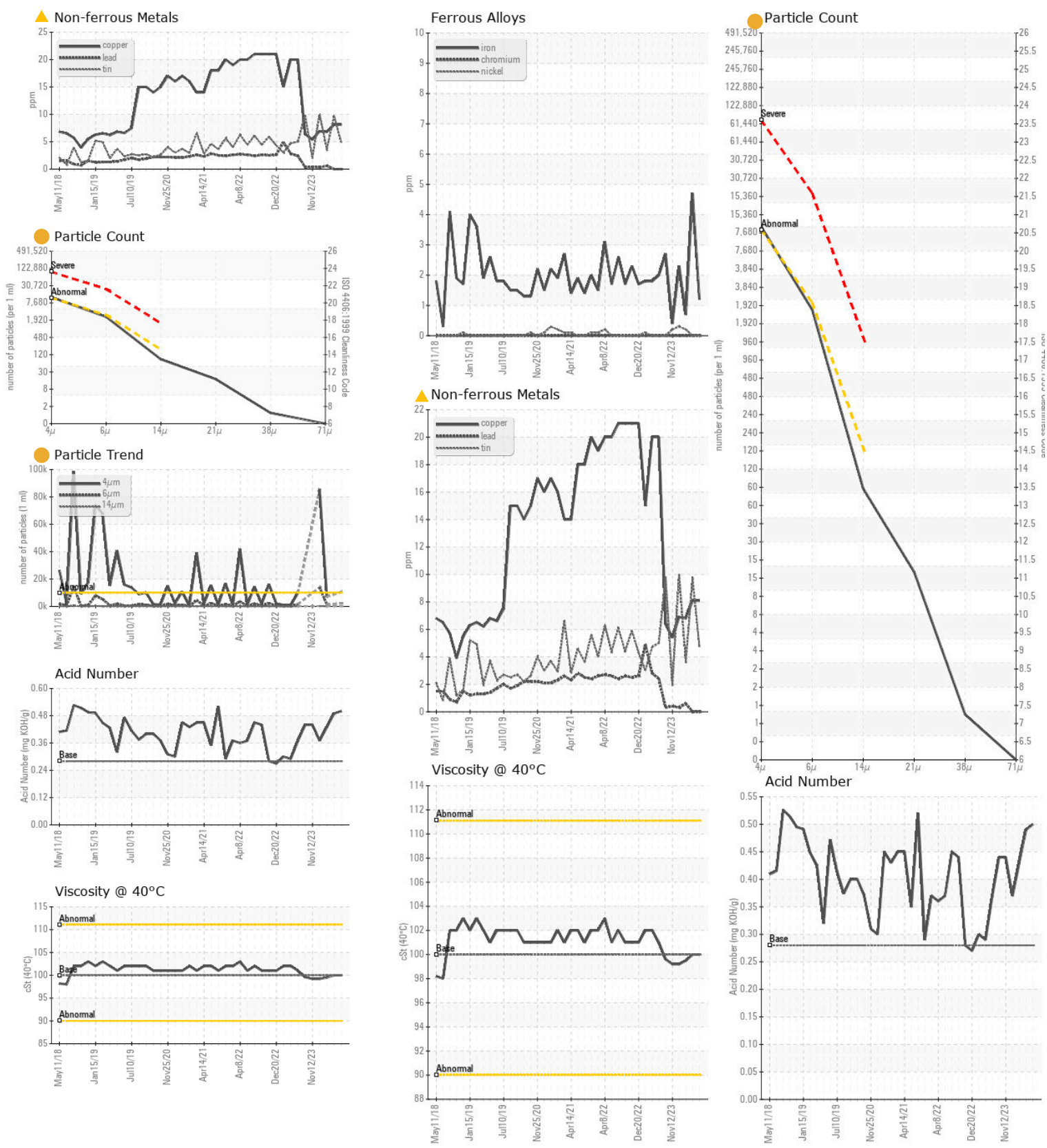
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>15	3	4	4
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>10000	● 10582	---	6935
Particles >6µm		ASTM D7647	>2500	2181	---	1294
Particles >14µm		ASTM D7647	>160	73	---	67
Particles >21µm		ASTM D7647	>40	15	---	17
Particles >38µm		ASTM D7647	>10	1	---	2
Particles >71µm		ASTM D7647	>3	0	---	1
Oil Cleanliness		ISO 4406 (c)	>20/18/14	● 21/18/13	---	20/17/13
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	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Boron	ppm	ASTM D5185(m)		<1	<1	0
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)	110	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	60	55	54	54
Phosphorus	ppm	ASTM D5185(m)	330	330	334	339
Zinc	ppm	ASTM D5185(m)	390	427	430	423
Sulfur	ppm	ASTM D5185(m)	660	806	893	777
Acid Number (AN)	mg KOH/g	ASTM D974*	0.28	0.50	0.49	0.43
Visc @ 40°C	cSt	ASTM D7279(m)	100	100	100	99.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0839658
Lab Number : 02638962
Unique Number : 5788124
Test Package : MAR 2 (Additional Tests: PQ, PrtCount, TAN Man)
Received : 30 May 2024
Tested : 04 Jun 2024
Diagnosed : 04 Jun 2024 - Kevin Marson

CANADIAN COAST GUARD
 CCGS SIR WILLIAM ALEXANDER, 13 AKERLEY BLVD, DOOR 1A
 DARTMOUTH, NS
 CA B3B 1J6
 Contact: Chief Engineer Senior Engineer
 sirwilliamalexanderse@nwa.ccgss-ngcc.gc.ca
 T: (902)456-9281
 F: (902)701-0593

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.