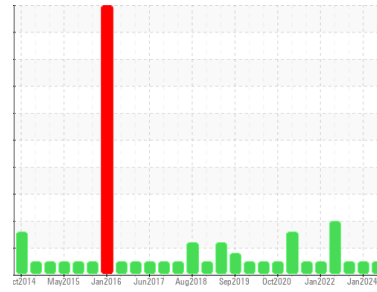




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

MARLEN 4 PLT 2

Component

Hydraulic System

Fluid

PETRO CANADA HYDREX AW 68 (60 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

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		USP0012554	USP0005616	USP0000767
Sample Date	Client Info		04 Jun 2024	23 Jan 2024	06 Aug 2023
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			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	2	2	2
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >20	0	0	0
Lead	ppm	ASTM D5185m >20	0	<1	<1
Copper	ppm	ASTM D5185m >20	11	12	11
Tin	ppm	ASTM D5185m >20	0	<1	0
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	<1
Manganese	ppm	ASTM D5185m 0	0	<1	0
Magnesium	ppm	ASTM D5185m 0	2	3	0
Calcium	ppm	ASTM D5185m 50	35	35	24
Phosphorus	ppm	ASTM D5185m 330	337	321	348
Zinc	ppm	ASTM D5185m 430	397	357	360
Sulfur	ppm	ASTM D5185m 760	954	734	853

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	<1	<1
Sodium	ppm	ASTM D5185m	<1	1	0
Potassium	ppm	ASTM D5185m >20	<1	0	0
Water	%	ASTM D6304 >0.05	0.001	0.012	0.005
ppm Water	ppm	ASTM D6304 >500	2	128	56.1

FLUID CLEANLINESS

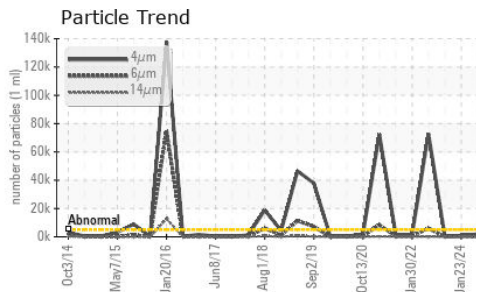
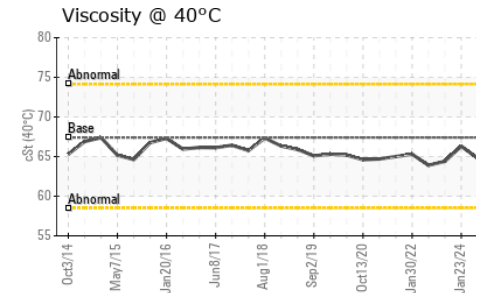
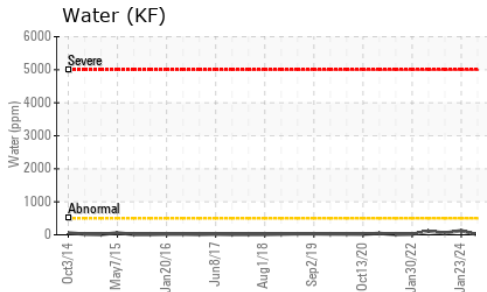
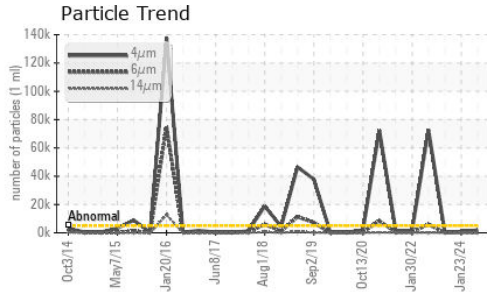
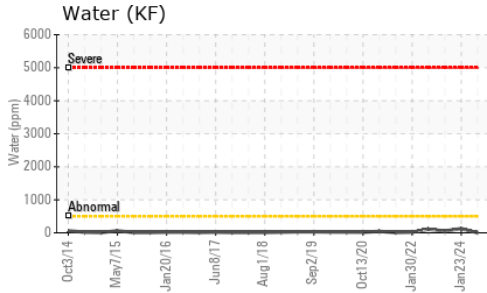
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	1949	899	506
Particles >6µm	ASTM D7647	>1300	209	131	124
Particles >14µm	ASTM D7647	>160	16	12	11
Particles >21µm	ASTM D7647	>40	4	4	2
Particles >38µm	ASTM D7647	>10	0	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	18/15/11	17/14/11	16/14/11

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.60	0.23	0.21	0.26



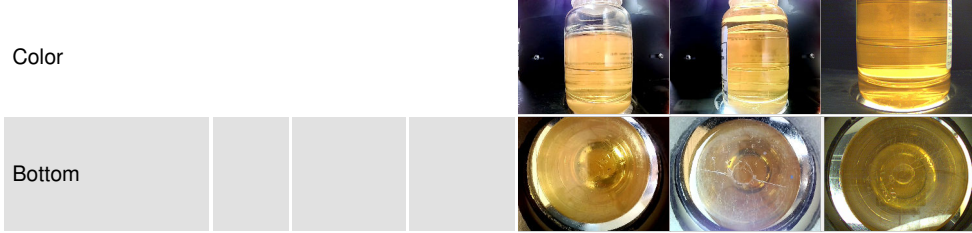
OIL ANALYSIS REPORT



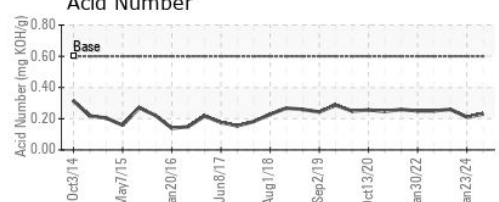
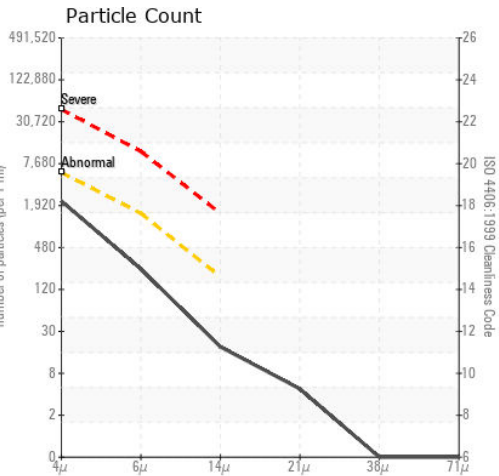
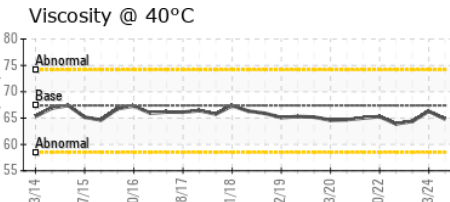
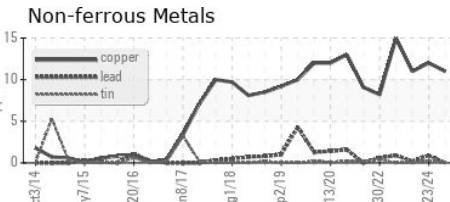
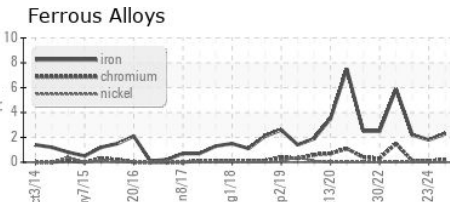
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67.4	64.8	66.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0012554
Lab Number : 06200195
Unique Number : 11062318
Test Package : IND 2
Received : 05 Jun 2024
Tested : 06 Jun 2024
Diagnosed : 10 Jun 2024 - Doug Bogart

ARMOUR - ECKRICH (SMITHFIELD FOODS SMISAILL)
 SAINT CHARLES, IL
 US
 Contact:

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)