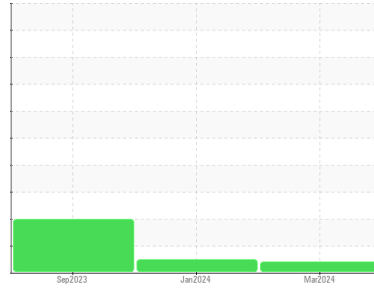


OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS



Machine Id
ROTOCHOP 5801103

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

▲ Contamination

Moderate concentration of visible dirt/debris present in the oil.

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		PCA0082930	PCA0115704	PCA0082934
Sample Date	Client Info		13 Mar 2024	03 Jan 2024	29 Sep 2023
Machine Age	hrs	Client Info	7362	7171	6800
Oil Age	hrs	Client Info	0	0	6800
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	16	25	14
Chromium	ppm	ASTM D5185m >10	<1	<1	0
Nickel	ppm	ASTM D5185m >10	<1	<1	<1
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m	0	<1	<1
Aluminum	ppm	ASTM D5185m >10	0	2	0
Lead	ppm	ASTM D5185m >10	0	2	0
Copper	ppm	ASTM D5185m >75	8	10	6
Tin	ppm	ASTM D5185m >10	0	1	0
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m 0	0	2	0
Molybdenum	ppm	ASTM D5185m 0	0	1	0
Manganese	ppm	ASTM D5185m 1	<1	<1	<1
Magnesium	ppm	ASTM D5185m 0	0	<1	0
Calcium	ppm	ASTM D5185m 100	73	91	96
Phosphorus	ppm	ASTM D5185m 670	747	731	647
Zinc	ppm	ASTM D5185m 850	936	932	938
Sulfur	ppm	ASTM D5185m 1600	2310	1960	1898

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<1	<1	<1
Sodium	ppm	ASTM D5185m	2	0	<1
Potassium	ppm	ASTM D5185m >20	<1	<1	<1
Water	%	ASTM D6304 >0.1	0.015	---	---
ppm Water	ppm	ASTM D6304 >1000	151	---	---

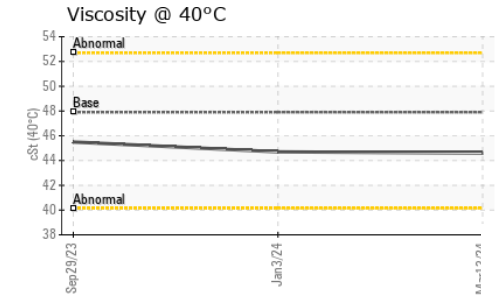
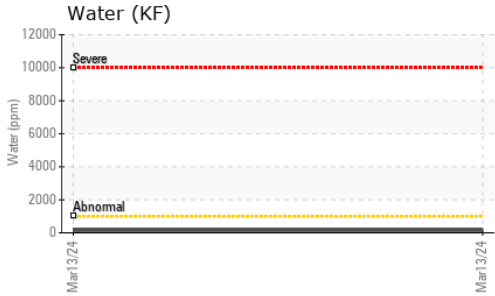
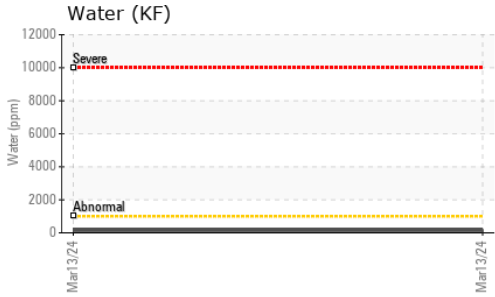
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	---	---	▲ 10382
Particles >6µm	ASTM D7647	>1300	---	---	▲ 3215
Particles >14µm	ASTM D7647	>160	---	---	▲ 395
Particles >21µm	ASTM D7647	>40	---	---	▲ 139
Particles >38µm	ASTM D7647	>10	---	---	7
Particles >71µm	ASTM D7647	>3	---	---	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	---	---	▲ 21/19/16

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.60	0.54	---	0.61

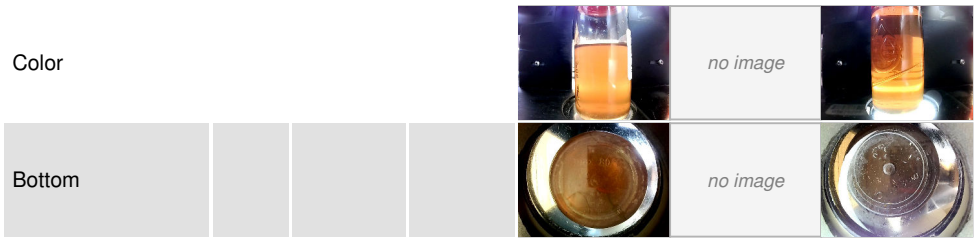
OIL ANALYSIS REPORT



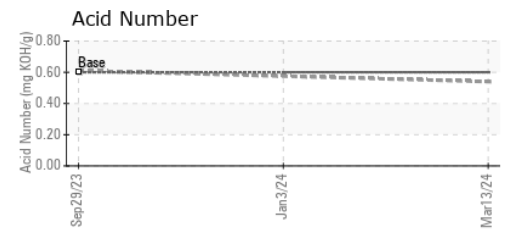
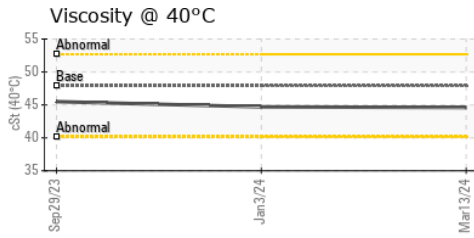
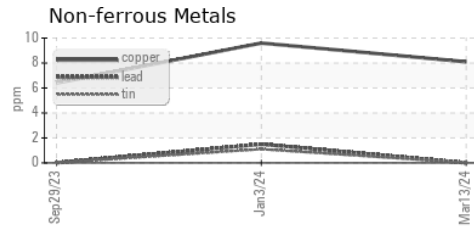
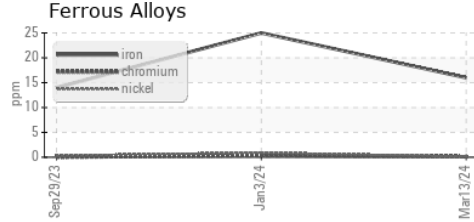
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	LIGHT	NONE
Sand/Dirt	scalar	*Visual	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
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	47.9	44.6	44.7	45.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0082930 **Received** : 18 Mar 2024
Lab Number : **06121564** **Tested** : 21 Mar 2024
Unique Number : 10930397 **Diagnosed** : 21 Mar 2024 - Jonathan Hester
Test Package : PLANT

DAVEY TREE - SOUTH ST PAUL
 405 HARDMAN AVE S
 SOUTH ST PAUL, MN
 US 55075
 Contact: RICK HOGAN
 rick.hogan@davey.com
 T: (651)337-4089
 F:

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)