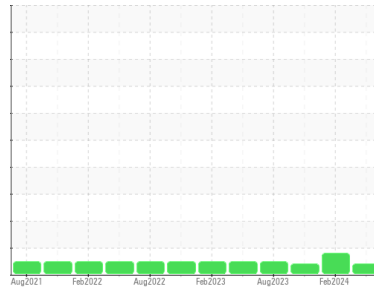


OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area

Pickle Line

Machine Id

[Pickle Line] 580045-CHOPPER KNIFE GB - DRIVE SIDE

Component

Drive End Gearbox

Fluid

PETRO CANADA ENDURATEX EP 220 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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.

Fluid Condition

The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0117680	PCA0113008	PCA0107674
Sample Date	Client Info		08 May 2024	13 Feb 2024	26 Nov 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ATTENTION	ABNORMAL	ATTENTION

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		140	122	---
Iron	ppm	ASTM D5185m >200	60	55	39
Chromium	ppm	ASTM D5185m >15	<1	<1	<1
Nickel	ppm	ASTM D5185m >15	2	1	1
Titanium	ppm	ASTM D5185m	1	<1	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	9	7	3
Lead	ppm	ASTM D5185m >100	1	0	<1
Copper	ppm	ASTM D5185m >200	2	<1	2
Tin	ppm	ASTM D5185m >25	1	0	<1
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 60	48	42	44
Barium	ppm	ASTM D5185m 0	0	0	<1
Molybdenum	ppm	ASTM D5185m 0	<1	0	<1
Manganese	ppm	ASTM D5185m 0	1	<1	<1
Magnesium	ppm	ASTM D5185m 0	1	0	<1
Calcium	ppm	ASTM D5185m 0	45	45	34
Phosphorus	ppm	ASTM D5185m 270	352	368	341
Zinc	ppm	ASTM D5185m 0	128	127	94
Sulfur	ppm	ASTM D5185m 11200	6732	6433	6891

CONTAMINANTS

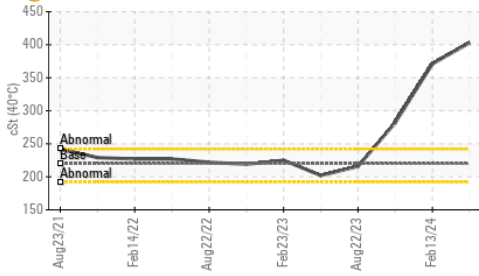
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	51	44	40
Sodium	ppm	ASTM D5185m	0	2	0
Potassium	ppm	ASTM D5185m >20	2	<1	2

FLUID DEGRADATION

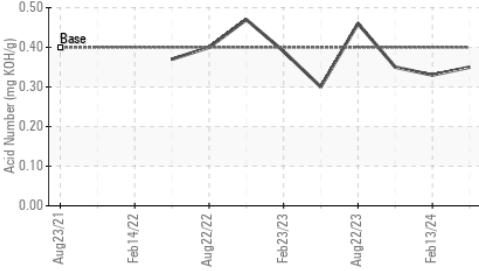
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.40	0.35	0.33	0.35

OIL ANALYSIS REPORT

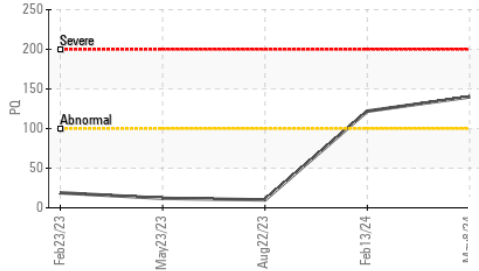
● Viscosity @ 40°C



Acid Number



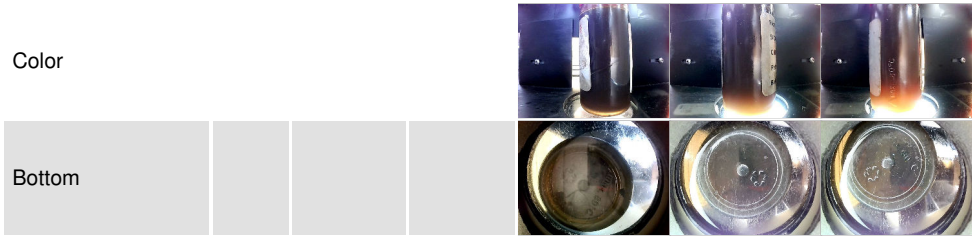
PQ



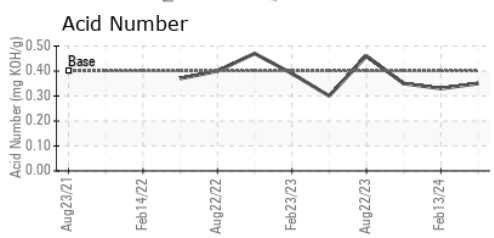
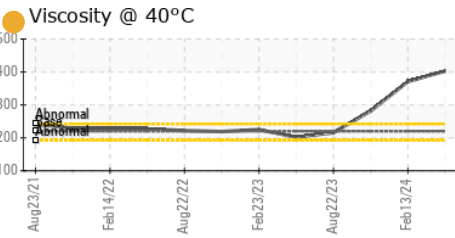
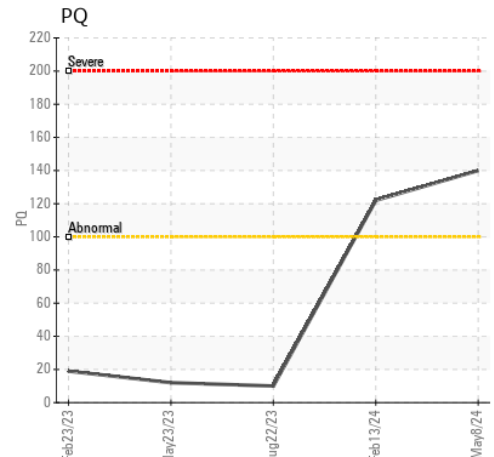
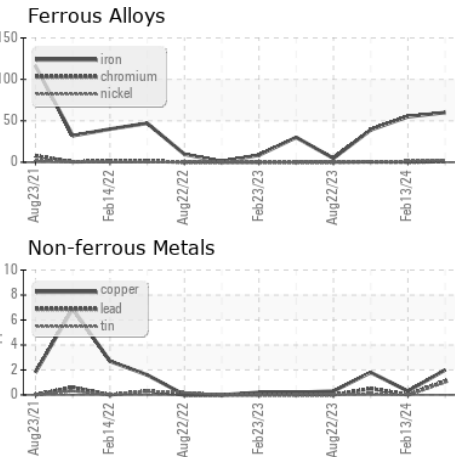
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 220	● 403	● 371	● 282.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0117680
Lab Number : 06173988
Unique Number : 11020041
Test Package : PLANT

Received : 09 May 2024
Tested : 10 May 2024
Diagnosed : 12 May 2024 - Don Baldrige

SDI - Steel DynamicsInc. - Heartland
 455 West Industrial Drive
 Terre Haute, IN
 US 47802
 Contact: BRAD ELLIS
 brad.ellis@steeldynamics.com

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)