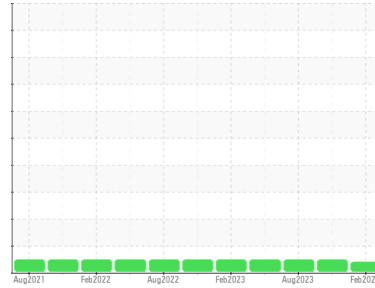


OIL ANALYSIS REPORT

Sample Rating Trend

VIS DEBRIS

Area
Pickle Line
 Machine Id
[Pickle Line] 545065-SBRKR EXIT BRDL ROLL # 2
 Component
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
 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	PCA0113004	PCA0107670	PCA0101452
Sample Date	Client Info	13 Feb 2024	26 Nov 2023	22 Aug 2023
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	NORMAL	NORMAL

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	43	---	12
Iron	ppm ASTM D5185m >200	52	65	5
Chromium	ppm ASTM D5185m >15	0	<1	0
Nickel	ppm ASTM D5185m >15	0	1	0
Titanium	ppm ASTM D5185m	<1	<1	0
Silver	ppm ASTM D5185m	0	0	0
Aluminum	ppm ASTM D5185m >25	0	<1	<1
Lead	ppm ASTM D5185m >100	0	<1	0
Copper	ppm ASTM D5185m >200	<1	1	<1
Tin	ppm ASTM D5185m >25	0	<1	0
Vanadium	ppm ASTM D5185m	<1	0	<1
Cadmium	ppm ASTM D5185m	0	<1	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 60	15	11	73
Barium	ppm ASTM D5185m 0	0	6	0
Molybdenum	ppm ASTM D5185m 0	0	<1	0
Manganese	ppm ASTM D5185m 0	<1	1	<1
Magnesium	ppm ASTM D5185m 0	0	4	1
Calcium	ppm ASTM D5185m 0	11	34	2
Phosphorus	ppm ASTM D5185m 270	233	271	284
Zinc	ppm ASTM D5185m 0	5	19	0
Sulfur	ppm ASTM D5185m 11200	9407	11211	8167

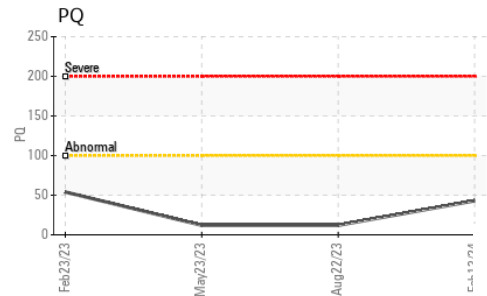
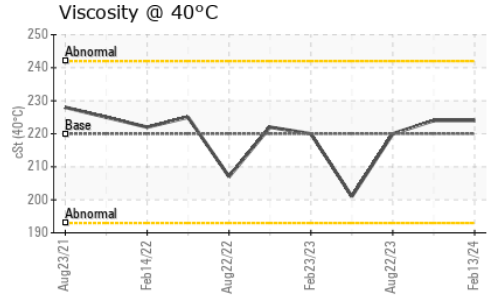
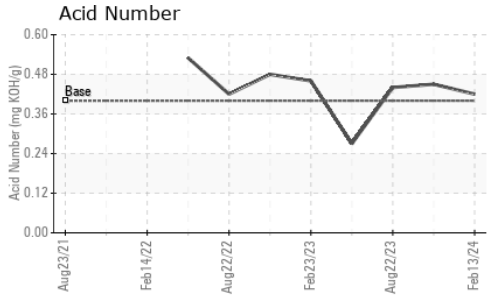
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >50	9	13	5
Sodium	ppm ASTM D5185m	<1	0	<1
Potassium	ppm ASTM D5185m >20	0	2	1

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 0.40	0.42	0.45	0.44

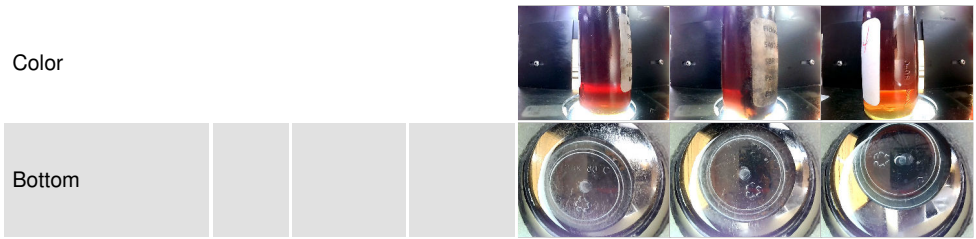
OIL ANALYSIS REPORT



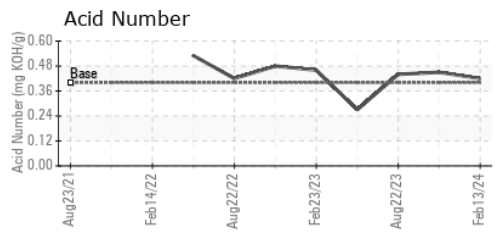
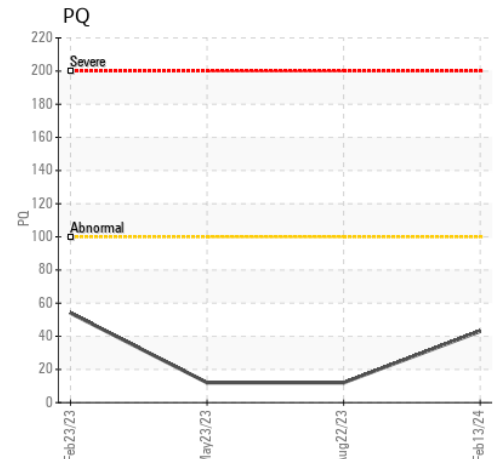
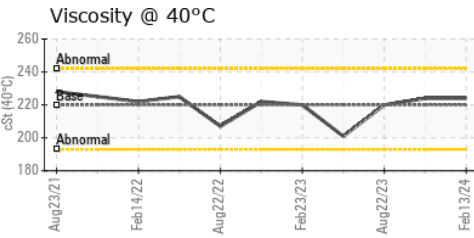
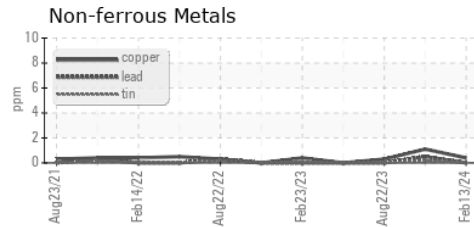
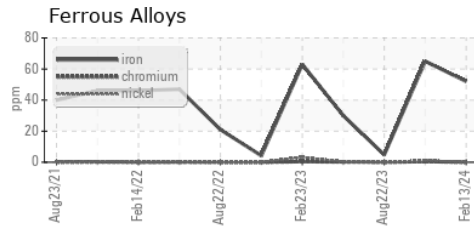
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	224	220

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0113004
Lab Number : 06088300
Unique Number : 10875745
Test Package : PLANT
Received : 13 Feb 2024
Tested : 14 Feb 2024
Diagnosed : 15 Feb 2024 - Don Baldrige

SDI - Steel Dynamics Inc. - 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)