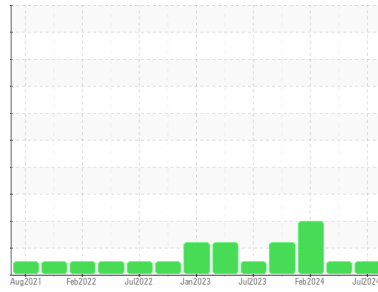


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Pickle Line
 Machine Id
[Pickle Line] 515020-ENTRY AUXILIARY HPU
 Component
Hydraulic System
 Fluid
PETRO CANADA HYDREX AW 46 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.
 NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is 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		PCA0129250	PCA0117633	PCA0112989
Sample Date	Client Info		14 Jul 2024	07 Apr 2024	14 Feb 2024
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			NORMAL	NORMAL	ATTENTION

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.05	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	1	1	0
Chromium	ppm	ASTM D5185m >20	<1	<1	0
Nickel	ppm	ASTM D5185m >20	<1	0	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >20	2	2	0
Lead	ppm	ASTM D5185m >20	5	0	9
Copper	ppm	ASTM D5185m >20	6	6	7
Tin	ppm	ASTM D5185m >20	2	2	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m 0	0	<1	0
Molybdenum	ppm	ASTM D5185m 0	<1	<1	0
Manganese	ppm	ASTM D5185m 0	<1	0	0
Magnesium	ppm	ASTM D5185m 0	3	3	0
Calcium	ppm	ASTM D5185m 50	33	52	38
Phosphorus	ppm	ASTM D5185m 330	306	336	301
Zinc	ppm	ASTM D5185m 430	413	406	352
Sulfur	ppm	ASTM D5185m 760	918	1081	1008

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	2	0	<1
Sodium	ppm	ASTM D5185m	0	0	<1
Potassium	ppm	ASTM D5185m >20	<1	1	0

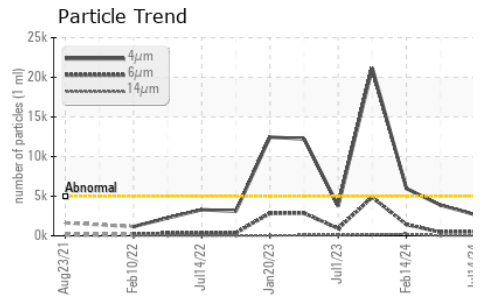
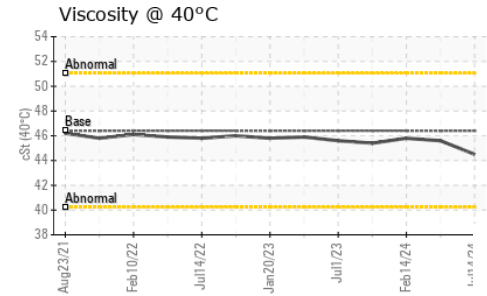
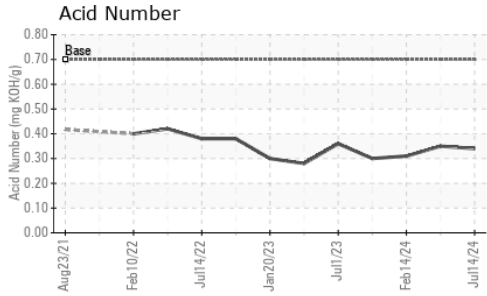
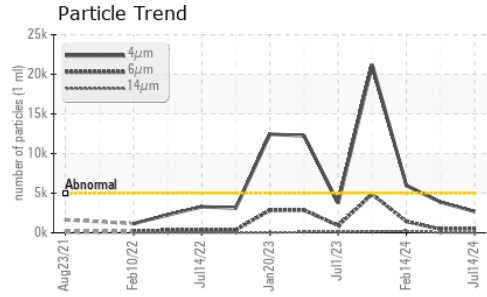
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	2692	3874	● 5968
Particles >6µm	ASTM D7647	>1300	487	448	● 1441
Particles >14µm	ASTM D7647	>160	23	33	● 225
Particles >21µm	ASTM D7647	>40	4	6	● 81
Particles >38µm	ASTM D7647	>10	0	0	10
Particles >71µm	ASTM D7647	>3	0	0	2
Oil Cleanliness	ISO 4406 (c)	>19/17/14	19/16/12	19/16/12	● 20/18/15

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.70	0.34	0.35	0.31

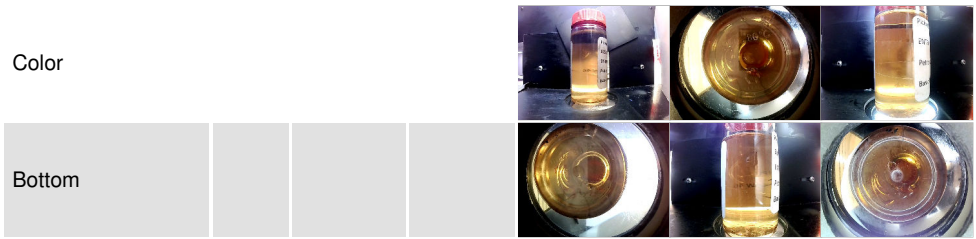
OIL ANALYSIS REPORT



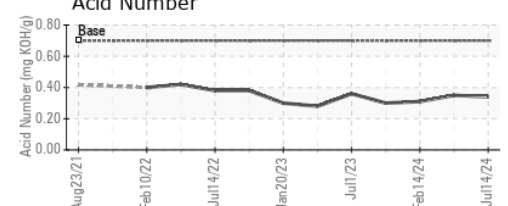
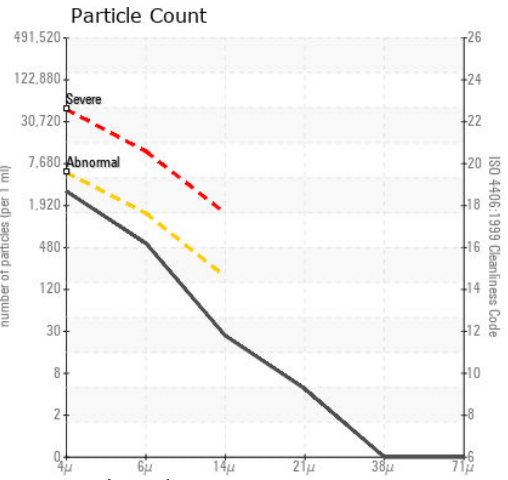
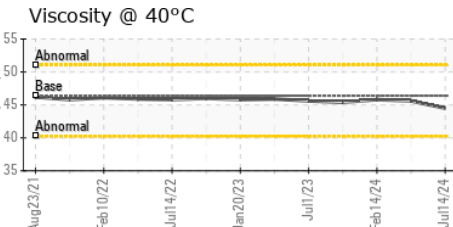
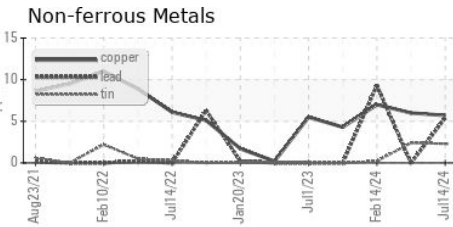
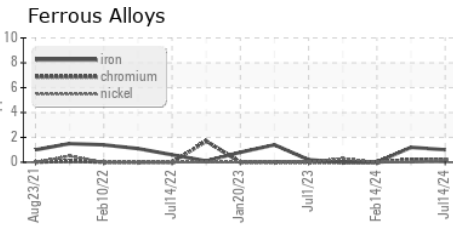
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	46.4	44.5	45.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0129250
Lab Number : 06235907
Unique Number : 11124741
Test Package : PLANT

Received : 15 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 16 Jul 2024 - Wes Davis

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)