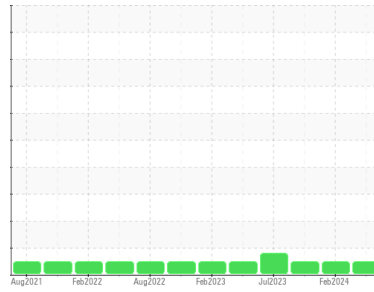


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Area

**Galv Line**

Machine Id

**[Galv Line] 670040-TEMPER MILL AUXILARY HPU**

Component

**Hydraulic System**

Fluid

**PETRO CANADA HYDREX AW 46 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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	<b>PCA0117590</b>	PCA0112969	PCA0107700
Sample Date	Client Info	<b>05 Jun 2024</b>	12 Feb 2024	20 Nov 2023
Machine Age	hrs Client Info	<b>0</b>	0	0
Oil Age	hrs Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >20	<b>&lt;1</b>	0	<1
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm ASTM D5185m >20	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>2</b>	0	2
Lead	ppm ASTM D5185m >20	<b>&lt;1</b>	0	0
Copper	ppm ASTM D5185m >20	<b>2</b>	2	3
Tin	ppm ASTM D5185m >20	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>0</b>	0	0
Barium	ppm ASTM D5185m 0	<b>&lt;1</b>	0	4
Molybdenum	ppm ASTM D5185m 0	<b>&lt;1</b>	0	<1
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 0	<b>2</b>	<1	3
Calcium	ppm ASTM D5185m 50	<b>45</b>	46	54
Phosphorus	ppm ASTM D5185m 330	<b>313</b>	283	399
Zinc	ppm ASTM D5185m 430	<b>424</b>	419	485
Sulfur	ppm ASTM D5185m 760	<b>793</b>	835	1076

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Sodium	ppm ASTM D5185m	<b>0</b>	<1	1
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	2	<1
Water	% ASTM D6304 >0.05	<b>NEG</b>	NEG	NEG

## FLUID CLEANLINESS

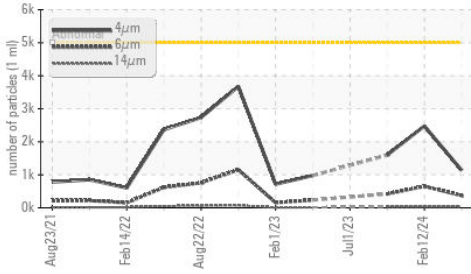
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>1138</b>	2478	1598
Particles >6µm	ASTM D7647 >1300	<b>371</b>	650	419
Particles >14µm	ASTM D7647 >160	<b>33</b>	31	27
Particles >21µm	ASTM D7647 >40	<b>8</b>	6	7
Particles >38µm	ASTM D7647 >10	<b>0</b>	0	0
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>17/16/12</b>	18/17/12	18/16/12

## FLUID DEGRADATION

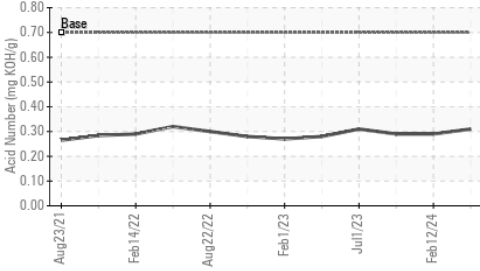
method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 0.70	<b>0.31</b>	0.29	0.29

# OIL ANALYSIS REPORT

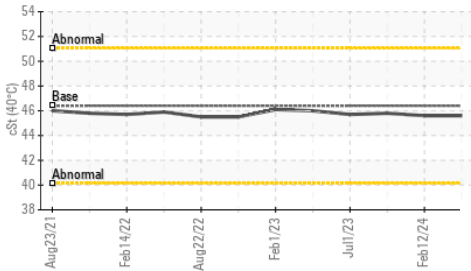
Particle Trend



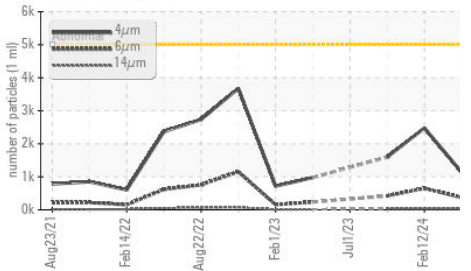
Acid Number



Viscosity @ 40°C



Particle Trend

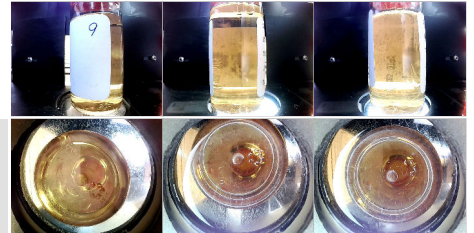


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	46.4	45.6	45.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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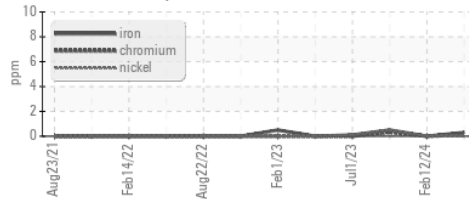
Color



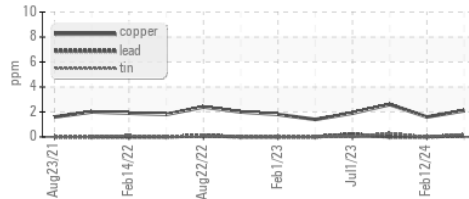
Bottom

## GRAPHS

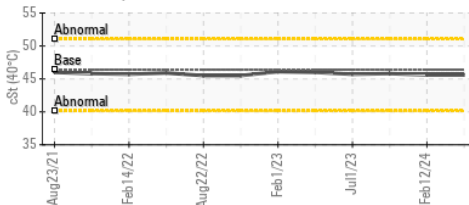
Ferrous Alloys



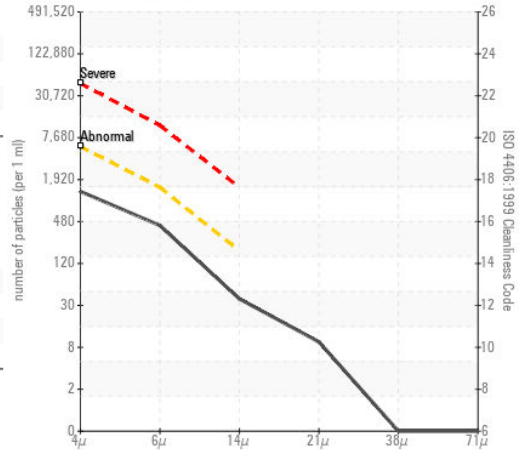
Non-ferrous Metals



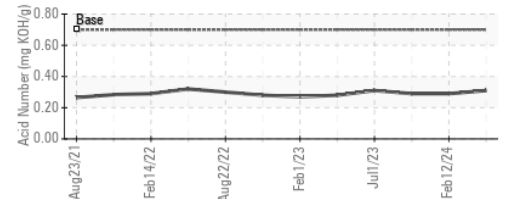
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0117590  
**Lab Number** : 06201482  
**Unique Number** : 11063605  
**Test Package** : PLANT

**Received** : 06 Jun 2024  
**Tested** : 09 Jun 2024  
**Diagnosed** : 09 Jun 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)