



Machine Id
CRANE 14 TROLLEY

Component
Gearbox
 Fluid
PETRO CANADA ENDURATEX EP 220 (--- 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

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	PCA0101558	PCA0077459	---
Sample Date	Client Info	28 Aug 2023	22 Sep 2022	---
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	Not Changd	---
Sample Status		NORMAL	NORMAL	---

WEAR METALS method limit/base current history1 history2

PQ		ASTM D8184		24	12	---
Iron	ppm	ASTM D5185m	>200	19	16	---
Chromium	ppm	ASTM D5185m	>15	0	0	---
Nickel	ppm	ASTM D5185m	>15	<1	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>25	0	<1	---
Lead	ppm	ASTM D5185m	>100	<1	0	---
Copper	ppm	ASTM D5185m	>200	2	1	---
Tin	ppm	ASTM D5185m	>25	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185m	60	20	18	---
Barium	ppm	ASTM D5185m	0	21	19	---
Molybdenum	ppm	ASTM D5185m	0	<1	<1	---
Manganese	ppm	ASTM D5185m	0	0	<1	---
Magnesium	ppm	ASTM D5185m	0	2	2	---
Calcium	ppm	ASTM D5185m	0	24	23	---
Phosphorus	ppm	ASTM D5185m	270	254	252	---
Zinc	ppm	ASTM D5185m	0	17	15	---
Sulfur	ppm	ASTM D5185m	11200	6784	7413	---

CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>50	14	10	---
Sodium	ppm	ASTM D5185m		0	0	---
Potassium	ppm	ASTM D5185m	>20	<1	0	---

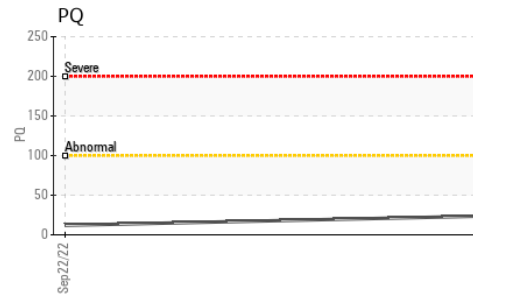
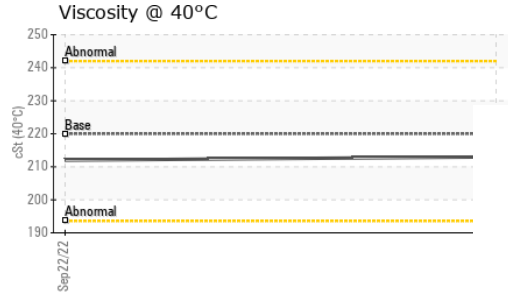
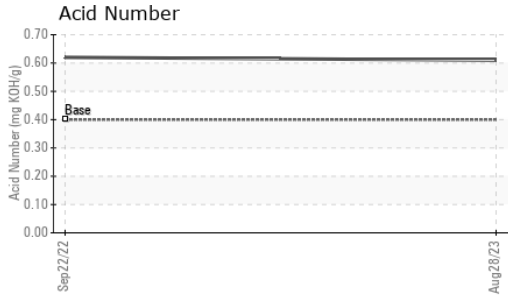
FLUID DEGRADATION method limit/base current history1 history2

Acid Number (AN)	mg KOH/g	ASTM D8045	0.40	0.61	0.62	---
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VISUAL method limit/base current history1 history2

White Metal	scalar	*Visual	NONE	NONE	VLITE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Free Water	scalar	*Visual		NEG	---	---

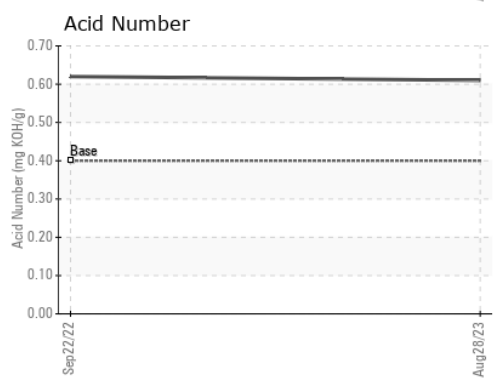
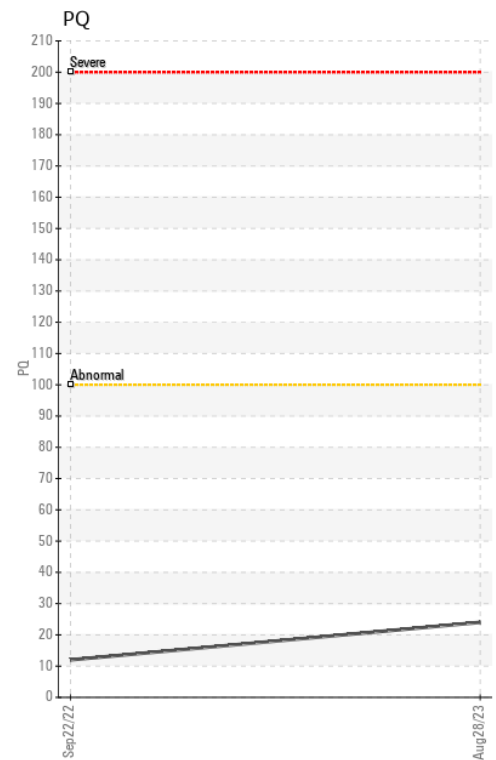
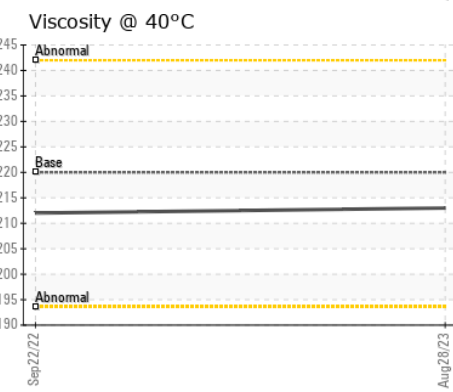
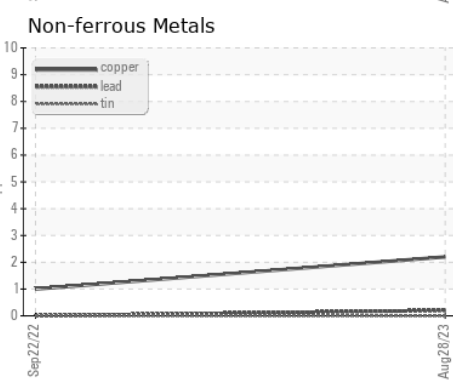
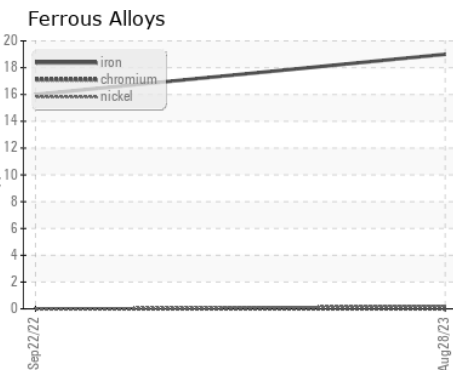
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	213	212	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						no image
Bottom						no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0101558 **Received** : 29 Aug 2023
Lab Number : 05937406 **Diagnosed** : 30 Aug 2023
Unique Number : 10622677 **Diagnostician** : Wes Davis
Test Package : PLANT

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