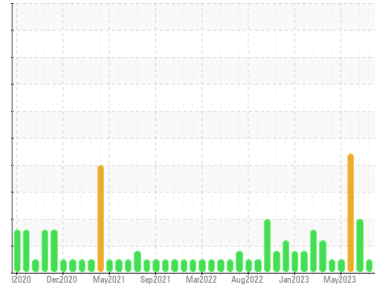




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
HPP [10023647030]
 Machine Id
VESSEL 3 PUMP 1 (S/N B44045)

Component
Hydraulic System
 Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 46 (90 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. 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	WC0856693	WC0852789	WC0840980
Sample Date	Client Info	31 Oct 2023	31 Aug 2023	03 Aug 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	ABNORMAL

WEAR METALS

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

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m	0	0	0
Calcium	ppm	ASTM D5185m	1	0	0
Phosphorus	ppm	ASTM D5185m	481	488	458
Zinc	ppm	ASTM D5185m	0	0	0
Sulfur	ppm	ASTM D5185m	580	542	650

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	3	3	2
Sodium	ppm	ASTM D5185m	1	<1	<1
Potassium	ppm	ASTM D5185m >20	<1	0	0
Water	%	ASTM D6304 >0.05	0.002	0.001	0.001
ppm Water	ppm	ASTM D6304 >500	16.0	3.2	5.2

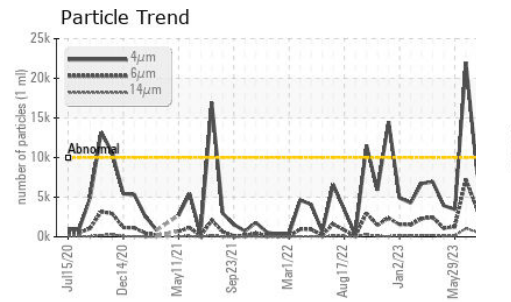
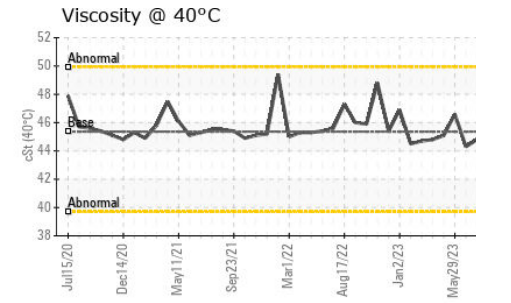
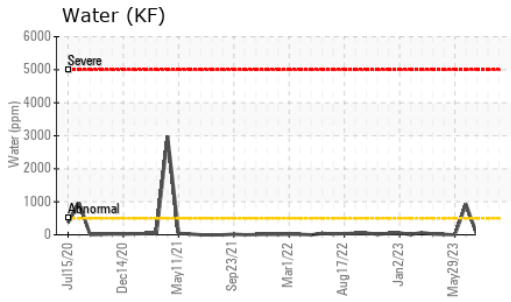
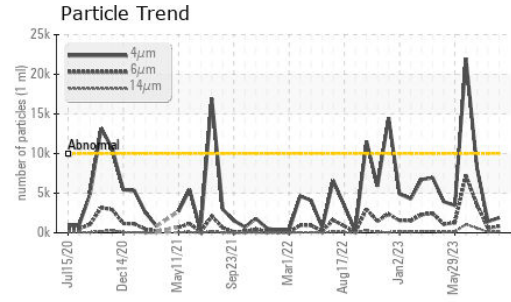
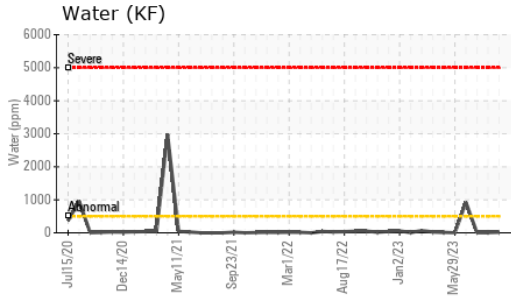
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	1901	1423	8193
Particles >6µm	ASTM D7647 >1300	833	571	▲ 3561
Particles >14µm	ASTM D7647 >160	146	110	▲ 584
Particles >21µm	ASTM D7647 >40	56	37	▲ 228
Particles >38µm	ASTM D7647 >10	5	2	▲ 21
Particles >71µm	ASTM D7647 >3	0	0	1
Oil Cleanliness	ISO 4406 (c) >20/17/14	18/17/14	18/16/14	▲ 20/19/16

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.26	0.27	0.24	0.25

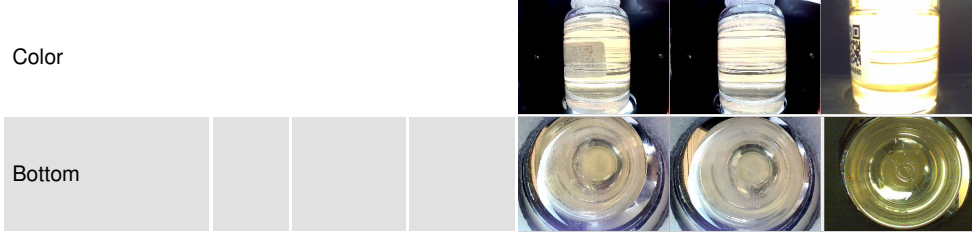
OIL ANALYSIS REPORT



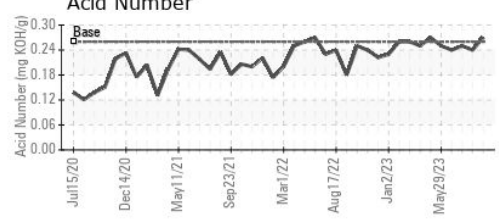
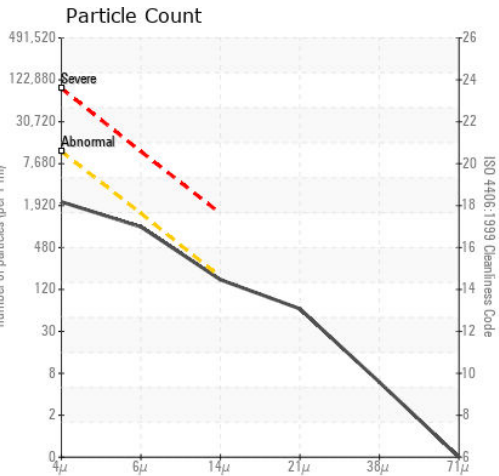
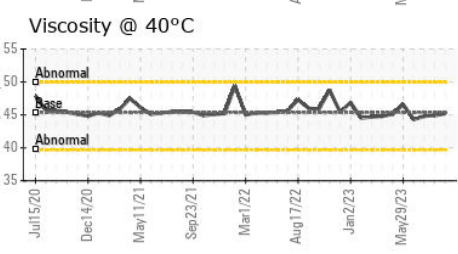
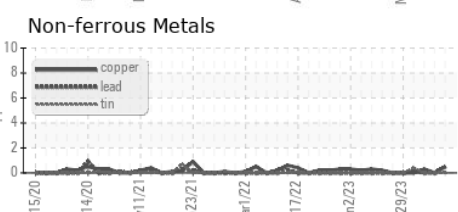
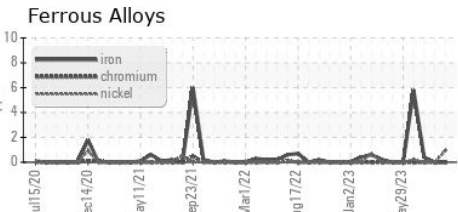
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	45.36	45.2	44.9	44.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0856693 **Received** : 07 Nov 2023
Lab Number : 06000494 **Diagnosed** : 08 Nov 2023
Unique Number : 10728854 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF)

OSCEOLA FOODS (HORMEL)
 1027 WARREN AVE
 OSCEOLA, IA
 US 50213
 Contact: WADE MYERS
 wlmymers@hormel.com
 T: (641)342-8043
 F: (641)342-8047

Certificate L2367
 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)