

Machine Id
SILO #1 (S/N 233025)
Component
Circulating Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (--- LTR)

DIAGNOSIS

Recommendation
The component was not specified, however we determined the component was a hydraulic system based on the type of fluid used. Please specify component type with your next sample. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear
Copper ppm levels are abnormal. Oil cooler core leaching or motor piston wear is indicated.

Contamination
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0058417	PC0058230	PC383503
Sample Date	Client Info			09 Jul 2024	06 Jul 2022	05 Mar 2018
Machine Age	hrs	Client Info		191028	90837	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			Not Changed	Not Changed	Not Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

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

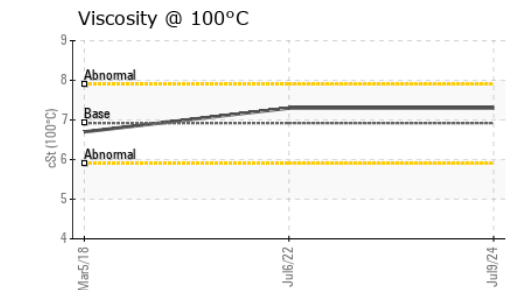
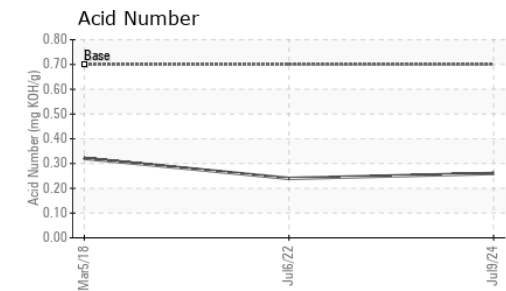
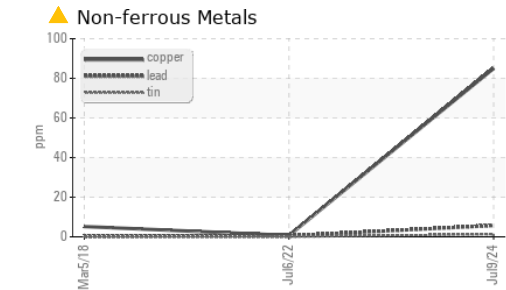
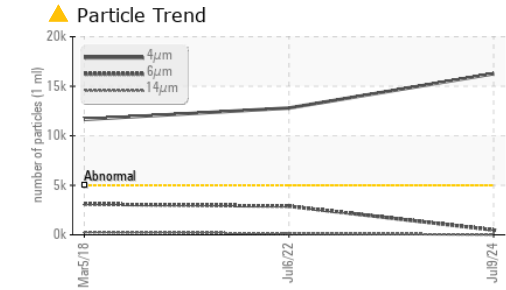
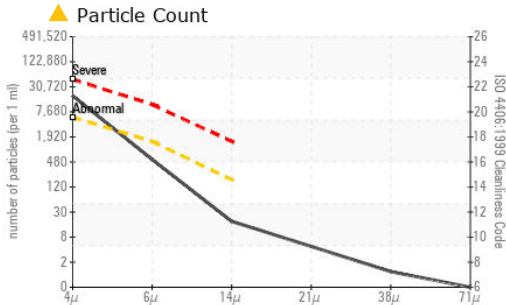
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	1	7	1
Chromium	ppm	ASTM D5185(m)	>20	1	0	<1
Nickel	ppm	ASTM D5185(m)	>20	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	0	0
Lead	ppm	ASTM D5185(m)	>20	6	<1	<1
Copper	ppm	ASTM D5185(m)	>20	▲ 85	<1	5
Tin	ppm	ASTM D5185(m)	>20	1	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	0	0	0
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	<1	0
Magnesium	ppm	ASTM D5185(m)	0	<1	0	<1
Calcium	ppm	ASTM D5185(m)	50	44	46	41
Phosphorus	ppm	ASTM D5185(m)	330	308	321	261
Zinc	ppm	ASTM D5185(m)	430	360	407	331
Sulfur	ppm	ASTM D5185(m)	760	755	836	5229
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	0	<1	<1
Sodium	ppm	ASTM D5185(m)		0	<1	1
Potassium	ppm	ASTM D5185(m)	>20	0	0	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 16266	▲ 12801	▲ 11653	
Particles >6µm	ASTM D7647	>1300	486	▲ 2888	▲ 3097	
Particles >14µm	ASTM D7647	>160	16	140	● 260	
Particles >21µm	ASTM D7647	>40	4	24	● 75	
Particles >38µm	ASTM D7647	>10	1	0	4	
Particles >71µm	ASTM D7647	>3	0	0	0	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/16/11	▲ 21/19/14	▲ 21/19/15	

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0058417
Lab Number : 02647807
Unique Number : 5813359
Test Package : IND 2 (Additional Tests: KV100, VI)

ONTARIO CLEAN WATER AGENCY- SOUTH PEEL FACILITIES
 1300 LAKESHORE RD
 MISSISSAUGA, ON
 CA L5E 1E9
 Contact: Angelo Magnifico
 amagnifico@ocwa.com
 T: (905)274-1223
 F: (905)274-2076

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	0.26	0.24	0.321
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG	.2%
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	46.1	49.8	46.2
Visc @ 100°C	cSt	ASTM D7279(m)	6.92	7.3	7.3	6.7
Viscosity Index (VI)	Scale	ASTM D2270*	104	120	106	96

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						