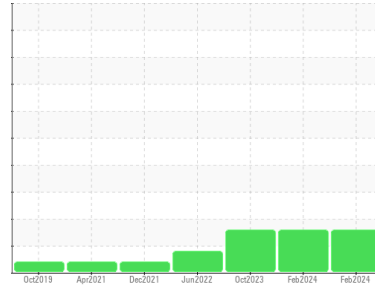


Area
HAMEL CONSTRUCTION
Machine Id
MCCLOSKEY 60008

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (600 LTR)



DIAGNOSIS

Recommendation

Nous recommandons le remplacement des filtres de ce composant. Confirmez la source du lubrifiant utilisé pour l'appoint/remplissage. Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

Wear

Les taux d'usure de tous les composants sont normaux.

Contamination

Il y a une légère quantité de limon (particules de 4 à 14 microns) dans l'huile.

Fluid Condition

La viscosité de l'huile est inférieure à la viscosité type, ce qui pourrait indiquer l'ajout d'un grade d'huile plus léger. Ceci, en plus des niveaux d'additifs, indique que la marque ou le type d'huile ne correspond pas à ce qui a été signalé. Le AN est acceptable pour ce fluide. L'état de l'huile permet d'en prolonger l'utilisation.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC0081201	PC0062155	PC0061675
Sample Date	Client Info	22 Feb 2024	22 Feb 2024	05 Oct 2023
Machine Age	hrs	2624	2624	2377
Oil Age	hrs	2624	2624	2377
Oil Changed	Client Info	Not Chngd	Not Chngd	Not Chngd
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	3	2	2
Chromium	ppm ASTM D5185(m) >20	0	0	0
Nickel	ppm ASTM D5185(m) >20	<1	0	<1
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m)	0	0	<1
Aluminum	ppm ASTM D5185(m) >20	<1	<1	0
Lead	ppm ASTM D5185(m) >20	<1	<1	<1
Copper	ppm ASTM D5185(m) >20	2	2	2
Tin	ppm ASTM D5185(m) >20	0	0	0
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	<1	<1	<1
Barium	ppm ASTM D5185(m) 0	0	0	<1
Molybdenum	ppm ASTM D5185(m) 0	0	0	0
Manganese	ppm ASTM D5185(m) 1	0	0	0
Magnesium	ppm ASTM D5185(m) 0	5	5	5
Calcium	ppm ASTM D5185(m) 100	54	51	50
Phosphorus	ppm ASTM D5185(m) 670	336	322	318
Zinc	ppm ASTM D5185(m) 850	423	411	422
Sulfur	ppm ASTM D5185(m) 1600	870	835	776
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

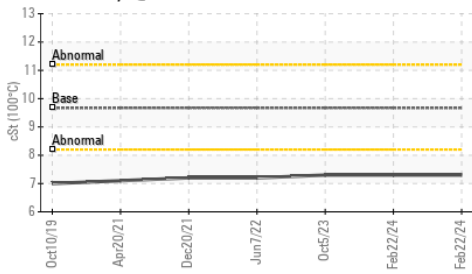
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	<1	<1	<1
Sodium	ppm ASTM D5185(m)	0	0	<1
Potassium	ppm ASTM D5185(m) >20	<1	<1	<1

FLUID CLEANLINESS

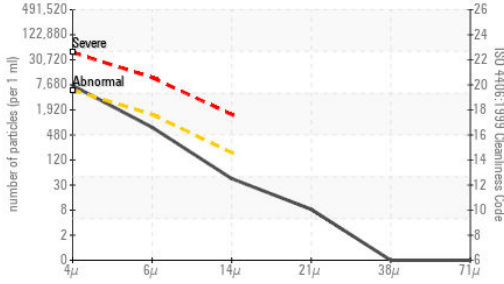
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	6427	5968	9111
Particles >6µm	ASTM D7647 >1300	643	177	2990
Particles >14µm	ASTM D7647 >160	38	16	213
Particles >21µm	ASTM D7647 >40	7	7	43
Particles >38µm	ASTM D7647 >10	0	2	1
Particles >71µm	ASTM D7647 >3	0	1	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	20/17/12	20/15/11	20/19/15

OIL ANALYSIS REPORT

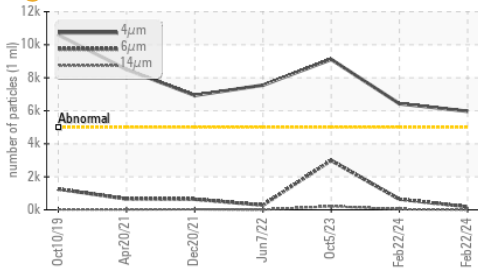
▲ Viscosity @ 100°C



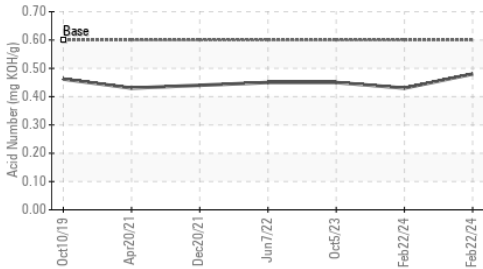
● Particle Count



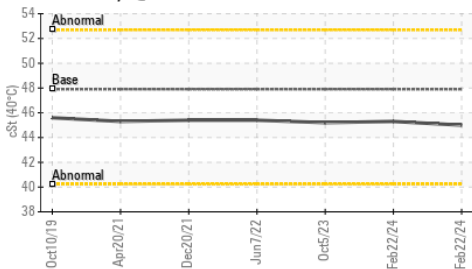
● Particle Trend



Acid Number



Viscosity @ 40°C



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN) mg KOH/g	ASTM D974*	0.60	0.48	0.43	0.45

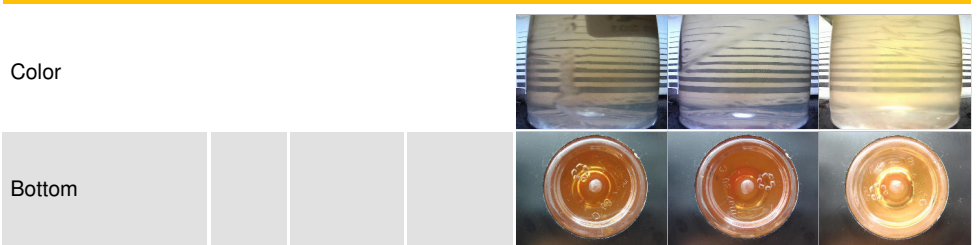
VISUAL

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	NONE	NONE
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	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES

method	limit/base	current	history1	history2		
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	45.0	45.3	45.2
Visc @ 100°C	cSt	ASTM D7279(m)	9.67	▲ 7.3	▲ 7.3	7.3
Viscosity Index (VI)	Scale	ASTM D2270*	192	▲ 124	▲ 123	123

SAMPLE IMAGES



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : PC0081201

Lab Number : **02620198**

Unique Number : 5737308

Test Package : IND 2 (Additional Tests: KV100, VI)

Received : 06 Mar 2024

Tested : 07 Mar 2024

Diagnosed : 07 Mar 2024 - Kevin Marson

HUILES DESROCHES INC.

915 RUE PHILIPPE-PARADIS, LOCAL 115

QUEBEC, QC

CA G1N 4E3

Contact: David Labrecque

david.labrecque@groupe-desroches.ca

T: (418)621-5150

F: (418)621-0822

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.