

PROBLEM SUMMARY

Sample Rating Trend

Stores Crane Stores Crane Hydraulics

Hydraulic System

PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS										
Sample Status			SEVERE							
Particles >4µm	ASTM D7647	>5000	43018							
Particles >6µm	ASTM D7647	>1300	10674							
Particles >14μm	ASTM D7647	>160	△ 626							
Particles >21μm	ASTM D7647	>40	127							
Oil Cleanliness	ISO 4406 (c)	>19/17/14	23/21/16							

Customer Id: VMASSEY Sample No.: WC0912787 **Lab Number:** 02644170 Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS							
Action	Status	Date	Done By	Description			
Change Filter			?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.			
Resample			?	Resample in 30-45 days to monitor this situation.			
Information Required			?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.			
Check Breathers			?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.			
Check Dirt Access			?	We advise that you check all areas where contaminants can enter the system.			
Filter Fluid			?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.			

HISTORICAL DIAGNOSIS

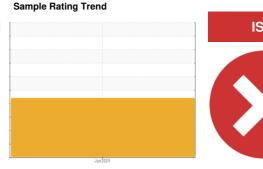


OIL ANALYSIS REPORT

Stores Crane Stores Crane Hydraulics

Hydraulic System

PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)





DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. 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 a high amount of particulates (2 to 100 microns in size) present in the oil.

Fluid Condition

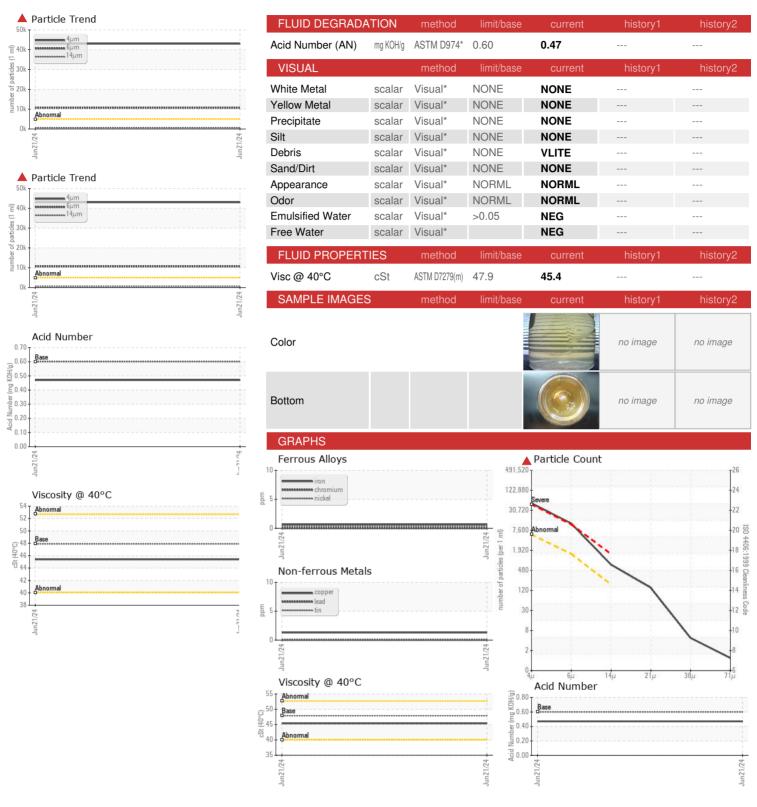
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

TURAULIC OIL (-	GAL)					
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0912787		
Sample Date		Client Info		21 Jun 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				SEVERE		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<1		
Chromium	ppm	ASTM D5185(m)	>10	0		
Nickel	ppm	ASTM D5185(m)	>10	<1		
Titanium	ppm	ASTM D5185(m)		<1		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>10	<1		
Lead	ppm	ASTM D5185(m)	>20	0		
Copper	ppm	ASTM D5185(m)	>20	1		
Tin	ppm	ASTM D5185(m)	>10	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<1		
Barium	ppm	ASTM D5185(m)	0	0		
Molybdenum	ppm	ASTM D5185(m)	0	0		
Manganese	ppm	ASTM D5185(m)	1	0		
Magnesium	ppm	ASTM D5185(m)	0	<1		
Calcium	ppm	ASTM D5185(m)	100	76		
Phosphorus	ppm	ASTM D5185(m)	670	546		
Zinc	ppm	ASTM D5185(m)	850	725		
Sulfur		, ,				
	ppm	ASTM D5185(m)	1600	1467		
Lithium	ppm	ASTM D5185(m) ASTM D5185(m)	1600	1467 <1		
Lithium CONTAMINANTS	ppm	. ,	limit/base	<1	history1	history2
CONTAMINANT	ppm	ASTM D5185(m) method	limit/base	<1 current		
CONTAMINANT: Silicon	ppm S ppm	ASTM D5185(m) method ASTM D5185(m)		<1 current	history1	history2
CONTAMINANTS Silicon Sodium	ppm S ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	limit/base >15	<1 current <1 0	history1	history2
CONTAMINANTS Silicon Sodium Potassium	ppm S ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20	<1 current <1 0 <1	history1	history2
CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLI	ppm S ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	limit/base >15 >20 limit/base	<1 current <1 0 <1 current	history1	history2 history2
CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLI Particles >4µm	ppm S ppm ppm ppm	Method ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D7647	limit/base >15 >20 limit/base >5000	<1 current <1 0 <1 current 41 0 <1 current 43018	history1 history1	history2 history2
CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLII Particles >4µm Particles >6µm	ppm S ppm ppm ppm	Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300	<1 current <1 0 <1 current 43018 10674	history1 history1 history1	history2 history2 history2
CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLI Particles >4µm Particles >6µm Particles >14µm	ppm S ppm ppm ppm	Method ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15	<1 current <1 0 <1 current 43018 ▲ 10674 ▲ 626	history1 history1 history1	history2 history2
CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLI Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm S ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15	<1 current <1 0 <1 current ▲ 43018 ▲ 10674 ▲ 626 ▲ 127	history1 history1 history1	history2 history2
CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLI Particles >4 Particles >6 Particles >14 Particles >21 Particles >38 Particles >	ppm S ppm ppm ppm	Method ASTM D5185(m) Method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) Method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	<1 current <1 0 <1 current ▲ 43018 ▲ 10674	history1 history1 history1	history2 history2
CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLI Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm S ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15	<1 current <1 0 <1 current ▲ 43018 ▲ 10674 ▲ 626 ▲ 127	history1 history1 history1	history2 history2

Contact/Location: Vincent Massey - VMASSEY



OIL ANALYSIS REPORT





ISO 17025:2017
Accredited
Laboratory

Laboratory : WearChed Sample No. : WC09127 Lab Number : 02644170

Unique Number : 5801709

Test Package : MAR 2

ry: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
lo.: WC0912787 Received: 26 Jun 2024

 Received
 : 26 Jun 2024

 Tested
 : 27 Jun 2024

 Diagnosed
 : 27 Jun 2024 - K

Canadian Coast Guard
CCGS Vincent Massey, 101 Boul. Champlain
Quebec, QC

: 27 Jun 2024 : 27 Jun 2024 - Kevin Marson

CA G1K 7Y7
Contact: Vincent Massey
vincentmasseyse@ccgs-ngcc.gc.ca

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.

T: (418)933-3097 F: