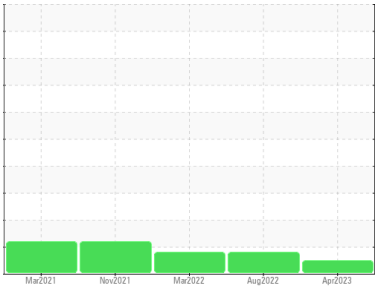
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
BH09
Component
Hydraulic System
Fluid
PETRO CANADA PRODURO TO-4 SAE 10W (68 GAL)

DIAGNOSIS

Recommendation
The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0091064**	PCA0080146	PCA0065105
Sample Date		Client Info		**06 Apr 2023**	19 Aug 2022	18 Mar 2022
Machine Age	hrs	Client Info		**6410**	5803	5184
Oil Age	hrs	Client Info		**0**	0	5184
Oil Changed		Client Info		**Not Changd**	Not Changd	Oil Added
Sample Status				**NORMAL**	ABNORMAL	MARGINAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**33**	▲ 34	▲ 37
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**0**	<1	0
Aluminum	ppm	ASTM D5185m	>10	**4**	6	7
Lead	ppm	ASTM D5185m	>10	**<1**	<1	<1
Copper	ppm	ASTM D5185m	>75	**6**	7	8
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	1	**2**	5	2
Barium	ppm	ASTM D5185m	0	**0**	<1	0
Molybdenum	ppm	ASTM D5185m	1	**3**	2	2
Manganese	ppm	ASTM D5185m	1	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1	**23**	19	14
Calcium	ppm	ASTM D5185m	2864	**1944**	1814	1745
Phosphorus	ppm	ASTM D5185m	987	**975**	996	1038
Zinc	ppm	ASTM D5185m	1162	**1201**	1252	1277
Sulfur	ppm	ASTM D5185m	3713	**3573**	4149	3057

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**7**	6	6
Sodium	ppm	ASTM D5185m		**2**	4	1
Potassium	ppm	ASTM D5185m	>20	**2**	0	3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**606**	---	2161
Particles >6µm		ASTM D7647	>1300	**78**	---	84
Particles >14µm		ASTM D7647	>160	**6**	---	10
Particles >21µm		ASTM D7647	>40	**2**	---	3
Particles >38µm		ASTM D7647	>10	**0**	---	0
Particles >71µm		ASTM D7647	>3	**0**	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**16/13/10**	---	18/14/10

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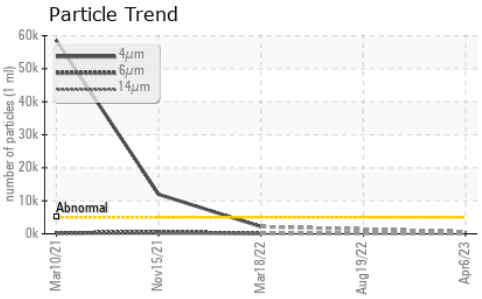
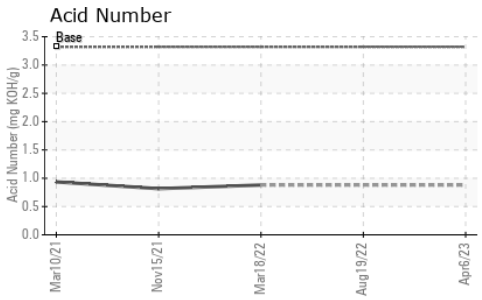
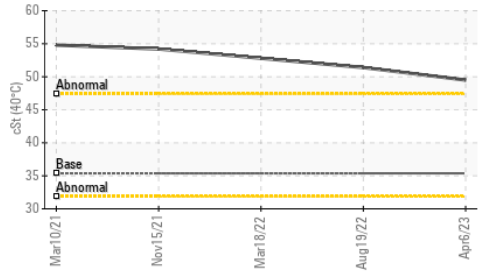
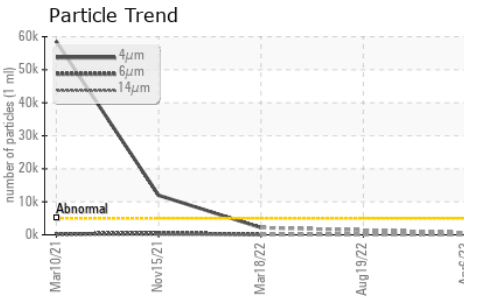








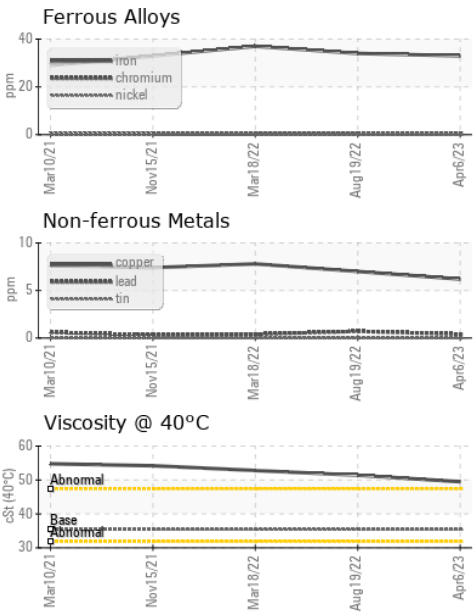
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	3.32	**0.88**	---	0.88

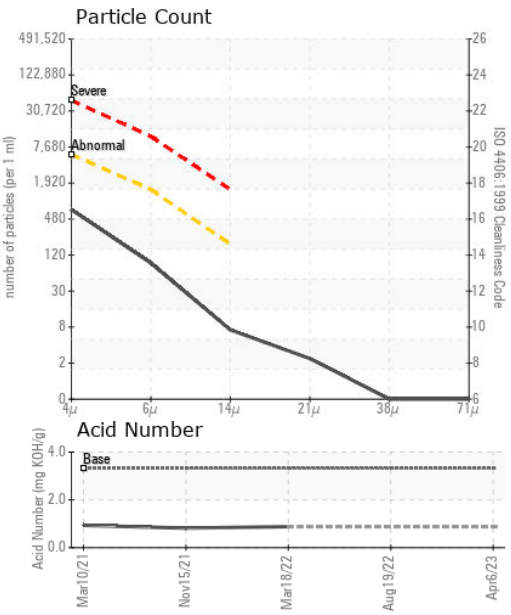
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	35.38	**49.5**	51.4	52.8

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

GRAPHS





Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0091064
Lab Number : 05815265
Unique Number : 10418057
Test Package : FLEET (Additional Tests: PrtCount)

Received : 10 Apr 2023
Tested : 11 Apr 2023
Diagnosed : 12 Apr 2023 - Doug Bogart

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)

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