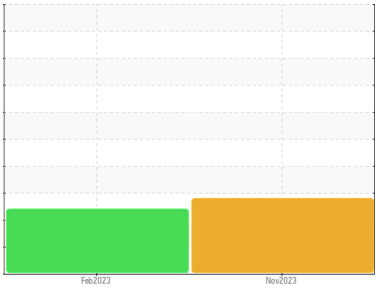
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
301WG
Component
Gear Unit
Fluid
PETRO CANADA PURITY FG EP GEAR FLUID 460 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

Lithium (Li) level abnormal at 29ppm., indicates possible grease contamination. There is a moderate concentration of water present in the oil. Free water present.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0066915**	PC0064126	---
Sample Date		Client Info		**10 Nov 2023**	21 Feb 2023	---
Machine Age	hrs	Client Info		**0**	0	---
Oil Age	hrs	Client Info		**0**	3781	---
Oil Changed		Client Info		**N/A**	N/A	---
Sample Status				**ABNORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>500	**143**	125	---
Chromium	ppm	ASTM D5185(m)	>8	**<1**	<1	---
Nickel	ppm	ASTM D5185(m)	>5	**<1**	<1	---
Titanium	ppm	ASTM D5185(m)		**0**	0	---
Silver	ppm	ASTM D5185(m)		**<1**	0	---
Aluminum	ppm	ASTM D5185(m)	>20	**11**	21	---
Lead	ppm	ASTM D5185(m)	>15	**1**	1	---
Copper	ppm	ASTM D5185(m)	>100	**7**	8	---
Tin	ppm	ASTM D5185(m)	>5	**<1**	<1	---
Antimony	ppm	ASTM D5185(m)	>5	**3**	4	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Beryllium	ppm	ASTM D5185(m)		**0**	0	---
Cadmium	ppm	ASTM D5185(m)		**0**	0	---

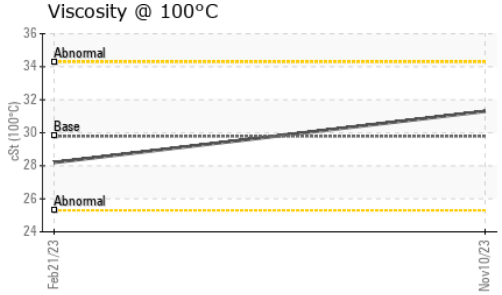
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**2**	2	---
Barium	ppm	ASTM D5185(m)		**1**	1	---
Molybdenum	ppm	ASTM D5185(m)		**<1**	<1	---
Manganese	ppm	ASTM D5185(m)		**<1**	1	---
Magnesium	ppm	ASTM D5185(m)		**<1**	0	---
Calcium	ppm	ASTM D5185(m)		**22**	28	---
Phosphorus	ppm	ASTM D5185(m)	135	**159**	250	---
Zinc	ppm	ASTM D5185(m)		**8**	11	---
Sulfur	ppm	ASTM D5185(m)	660	**725**	448	---
Lithium	ppm	ASTM D5185(m)		▲ **29**	17	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>75	**10**	9	---
Sodium	ppm	ASTM D5185(m)		**1**	1	---
Potassium	ppm	ASTM D5185(m)	>20	**3**	2	---

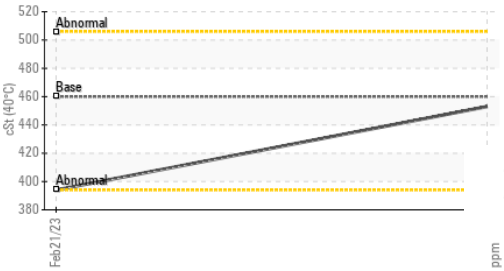
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	---
Silt	scalar	Visual*	NONE	**NONE**	NONE	---
Debris	scalar	Visual*	NONE	**NONE**	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	---
Appearance	scalar	Visual*	NORML	▲ **LAYRD**	▲ WGOIL	---
Odor	scalar	Visual*	NORML	**NORML**	NORML	---
Emulsified Water	scalar	Visual*	>0.2	▲ **.2%**	.5%	---
Free Water	scalar	Visual*		▲ **1%**	▲ 1%	---

OIL ANALYSIS REPORT

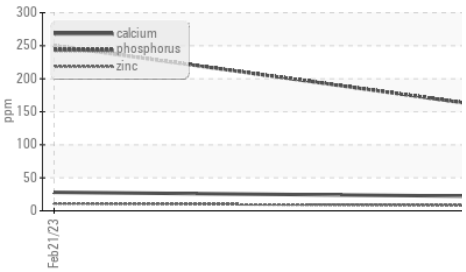
Viscosity @ 100°C



Viscosity @ 40°C



Additives

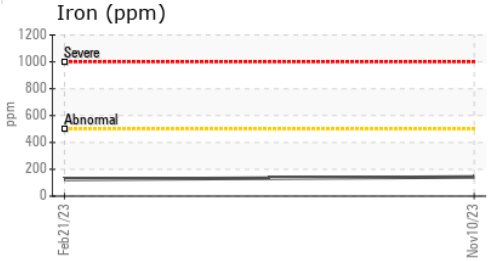


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	460	**453**	394	---
Visc @ 100°C	cSt	ASTM D7279(m)	29.79	**31.3**	28.2	---
Viscosity Index (VI)	Scale	ASTM D2270*	99	**99**	98	---

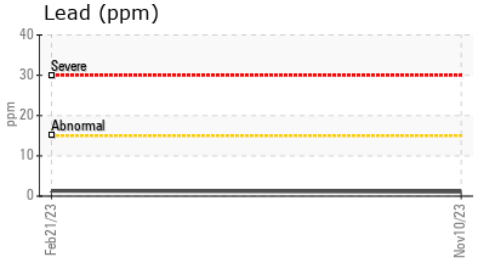
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

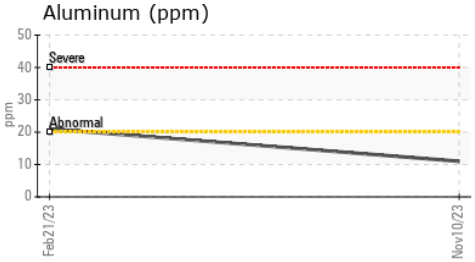
Iron (ppm)



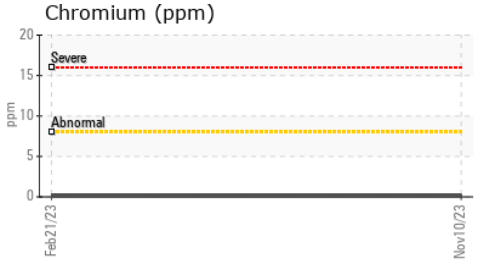
Lead (ppm)



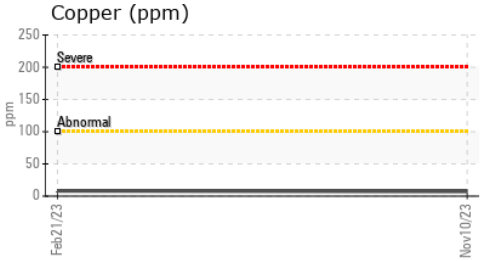
Aluminum (ppm)



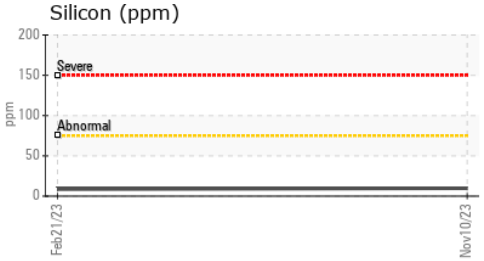
Chromium (ppm)



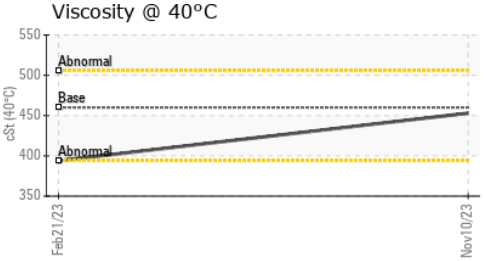
Copper (ppm)



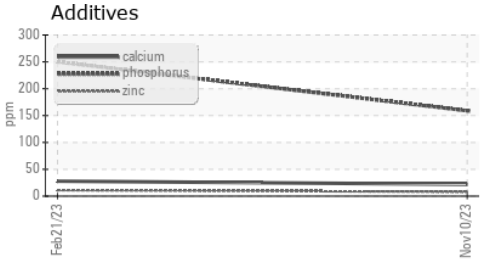
Silicon (ppm)



Viscosity @ 40°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0066915 **Received** : 14 Nov 2023
Lab Number : 02596396 **Diagnosed** : 15 Nov 2023
Unique Number : 5681476 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KV100, VI)

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.

CITY OF KIMBERLEY
340 SPOKANE ST
KIMBERLEY, BC
CA V1A 2E8
Contact: J Hollister
jhollister@kimberley.ca
T:
F: