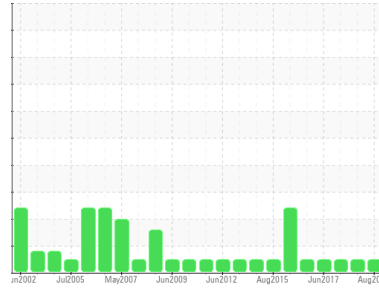




Area  
**Main Power Generation [450191501]**  
Machine Id  
**Generator MPG #1 (Stbd) - Starting Engine Crank Case (S/N Sample Tag XX-80101-S2)**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON MOTOR OIL SAE 40 (37 LTR)**



**DIAGNOSIS**

**Recommendation**  
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

**Wear**  
All component wear rates are normal.

**Contamination**  
There is no indication of any contamination in the oil.

**Fluid Condition**  
Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

**SAMPLE INFORMATION** method limit/base current history1 history2

Sample Number	Client Info	<b>PC0052571</b>	PC	PC417738
Sample Date	Client Info	<b>22 Aug 2023</b>	03 Nov 2019	04 Jun 2019
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

**CONTAMINATION** method limit/base current history1 history2

Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

**WEAR METALS** method limit/base current history1 history2

PQ	ASTM D8184*		<b>0</b>	5	9
Iron	ppm	ASTM D5185(m) >100	<b>29</b>	3	7
Chromium	ppm	ASTM D5185(m) >20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185(m) >4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m) >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >20	<b>4</b>	<1	2
Lead	ppm	ASTM D5185(m) >40	<b>2</b>	<1	2
Copper	ppm	ASTM D5185(m) >330	<b>7</b>	<1	2
Tin	ppm	ASTM D5185(m) >15	<b>3</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	<1

**ADDITIVES** method limit/base current history1 history2

Boron	ppm	ASTM D5185(m) 1.0	<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m) 1.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 1.0	<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185(m) 1	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 15	<b>942</b>	886	513
Calcium	ppm	ASTM D5185(m) 2540	<b>1008</b>	1060	1515
Phosphorus	ppm	ASTM D5185(m) 1000	<b>1161</b>	1105	1006
Zinc	ppm	ASTM D5185(m) 1110	<b>1252</b>	1256	1153
Sulfur	ppm	ASTM D5185(m) 3700	<b>2731</b>	2797	3093
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	0

**CONTAMINANTS** method limit/base current history1 history2

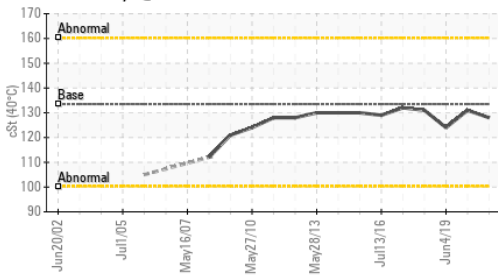
Silicon	ppm	ASTM D5185(m) >25	<b>14</b>	7	15
Sodium	ppm	ASTM D5185(m)	<b>2</b>	0	2
Potassium	ppm	ASTM D5185(m) >20	<b>1</b>	<1	<1

**INFRA-RED** method limit/base current history1 history2

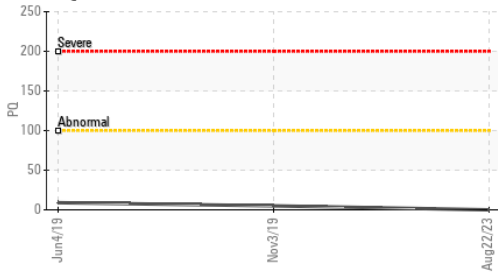
Soot %	%	ASTM D7844* >3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624* >20	<b>3.0</b>	3.6	3.6
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>12.3</b>	15.0	14.8

# OIL ANALYSIS REPORT

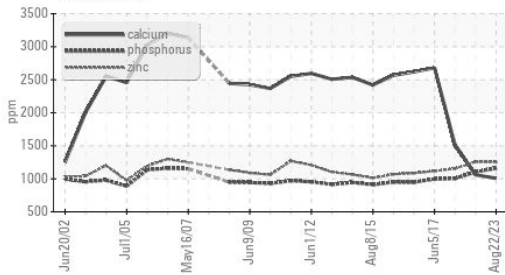
Viscosity @ 40°C



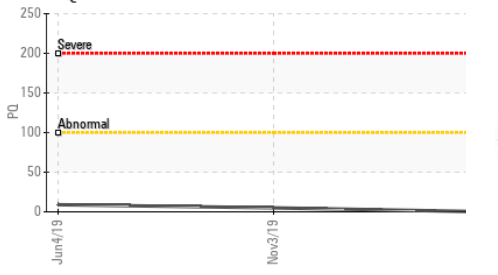
PQ



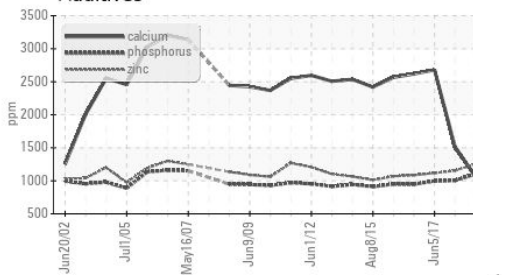
Additives



PQ



Additives



## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	---	57300	74334
Particles >6µm	ASTM D7647 >5000	---	2230	1035
Particles >14µm	ASTM D7647 >640	---	37	94
Particles >21µm	ASTM D7647 >160	---	13	19
Particles >38µm	ASTM D7647 >40	---	2	0
Particles >71µm	ASTM D7647 >10	---	0	0
Oil Cleanliness	ISO 4406 (c) >21/19/16	---	23/18/12	23/17/14

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm ASTM D7414*	>25	<b>6.1</b>	6.0	8.2
Base Number (BN)	mg KOH/g ASTM D2896*	7.9	<b>8.17</b>	7.15	7.93

## VISUAL

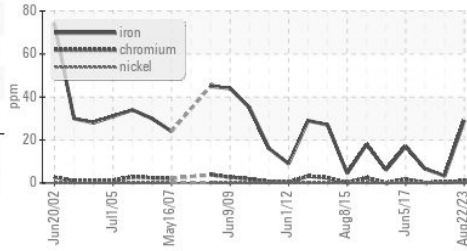
method	limit/base	current	history1	history2	
Emulsified Water	scalar Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar Visual*		<b>NEG</b>	NEG	NEG

## FLUID PROPERTIES

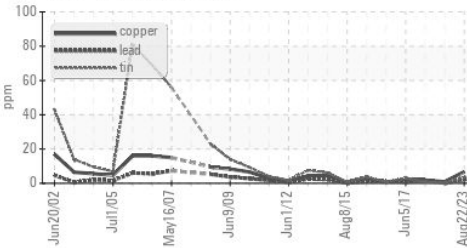
method	limit/base	current	history1	history2	
Visc @ 40°C	cSt ASTM D7279(m)	133.5	<b>128</b>	131	124
Visc @ 100°C	cSt ASTM D7279(m)	14.6	<b>13.9</b>	14.4	14.2
Viscosity Index (VI)	Scale ASTM D2270*	109	<b>105</b>	109	113

## GRAPHS

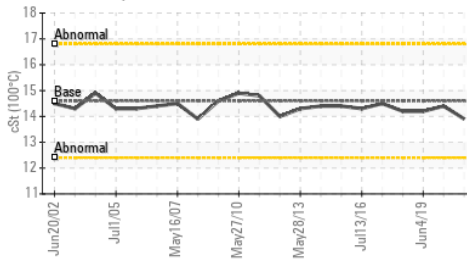
Ferrous Alloys



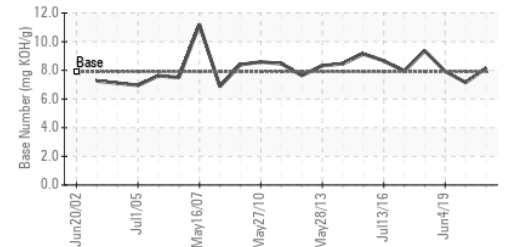
Non-ferrous Metals



Viscosity @ 100°C



Base Number



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory Sample No.** : PC0052571  
**Lab Number** : 02582000  
**Unique Number** : 5643065  
**Test Package** : MOB 2 ( Additional Tests: KV40, PQ, PrtCount, VI )

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Received** : 13 Sep 2023  
**Diagnosed** : 14 Sep 2023  
**Diagnostician** : Kevin Marson

**Suncor - Terra Nova Projects**  
Scotia Centre, 235 Water Street  
St. John's, NL  
CA A1C 1B6  
Contact: Josh Hynes  
joshhynes@suncor.com  
T: (709)778-3575  
F: (709)724-2835

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.