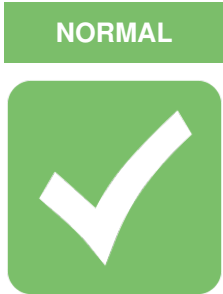
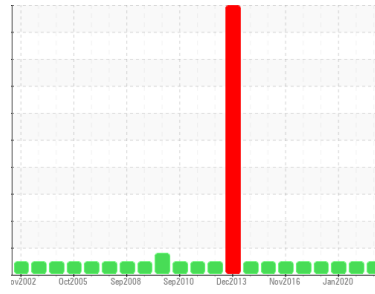


# OIL ANALYSIS REPORT

Area  
**Cargo [450335848]**  
 Machine  
**Offloading Hose Reel - B (S/N Sample Tag XX-32201B-S1)**  
 Component  
**Gear Drive**  
 Fluid  
**PETRO CANADA ENDURATEX EP 220 (16 LTR)**

Sample Rating Trend



## DIAGNOSIS

- Recommendation**  
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.
- Fluid Condition**  
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PC0080754</b>	PC	PC
Sample Date	Client Info	<b>14 May 2024</b>	01 Nov 2023	17 Jan 2020
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
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	<b>5</b>	0	15
Iron	ppm ASTM D5185(m) >161	<b>10</b>	4	25
Chromium	ppm ASTM D5185(m) >2	<b>0</b>	0	<1
Nickel	ppm ASTM D5185(m) >2	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	<1
Silver	ppm ASTM D5185(m)	<b>0</b>	<1	<1
Aluminum	ppm ASTM D5185(m) >3	<b>&lt;1</b>	<1	<1
Lead	ppm ASTM D5185(m) >9	<b>0</b>	<1	0
Copper	ppm ASTM D5185(m) >5	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185(m) >2	<b>0</b>	0	0
Antimony	ppm ASTM D5185(m) >5	<b>0</b>	0	<1
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	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 60	<b>19</b>	21	46
Barium	ppm ASTM D5185(m) 0	<b>0</b>	<1	1
Molybdenum	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Manganese	ppm ASTM D5185(m) 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185(m) 0	<b>&lt;1</b>	0	1
Calcium	ppm ASTM D5185(m) 0	<b>8</b>	8	2
Phosphorus	ppm ASTM D5185(m) 270	<b>251</b>	251	247
Zinc	ppm ASTM D5185(m) 0	<b>4</b>	4	27
Sulfur	ppm ASTM D5185(m) 11200	<b>7510</b>	7746	10269
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

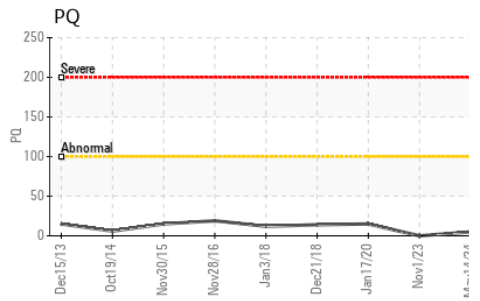
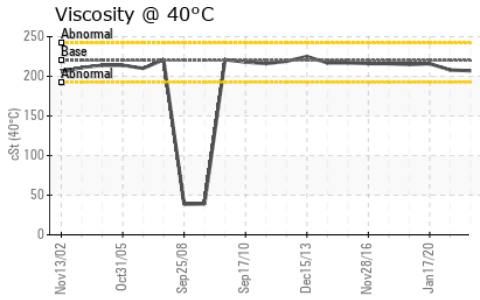
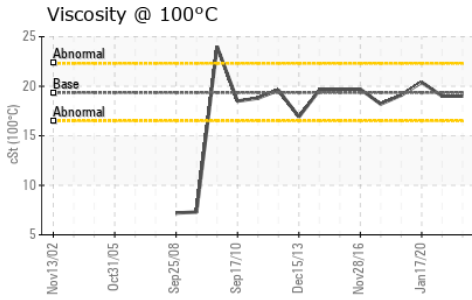
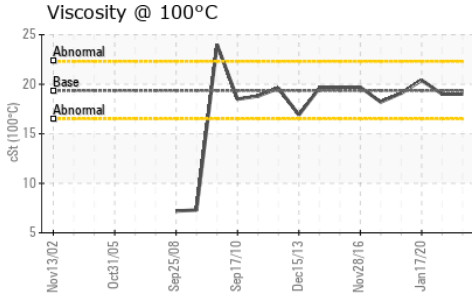
## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >23	<b>4</b>	5	7
Sodium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	3
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	0	<1

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974* 0.40	<b>0.35</b>	0.41	0.341

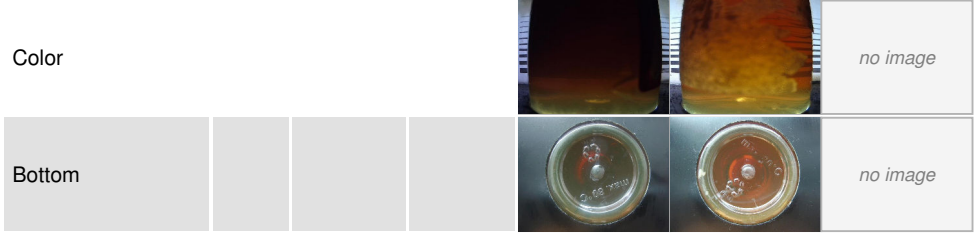
# OIL ANALYSIS REPORT



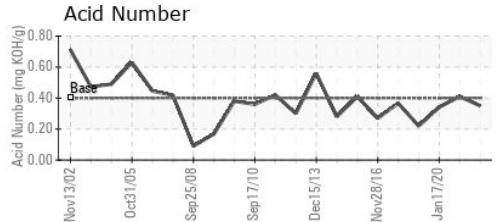
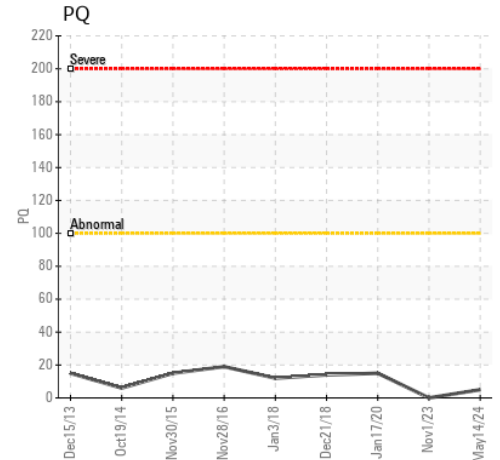
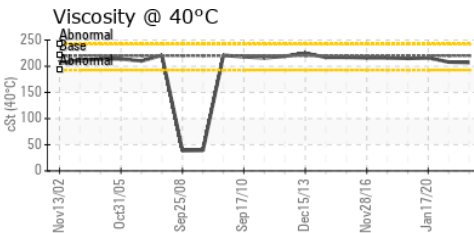
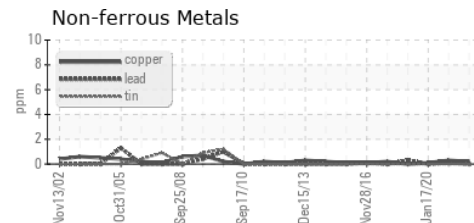
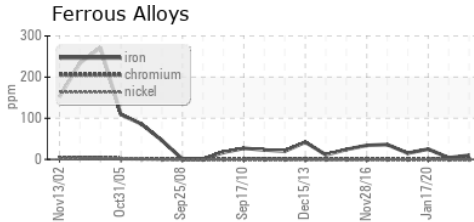
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	VLITE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	207	208
Visc @ 100°C	cSt	ASTM D7279(m)	19.35	19.0	20.4
Viscosity Index (VI)	Scale	ASTM D2270*	99	102	110

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0080754 **Received** : 28 May 2024  
**Lab Number** : 02638300 **Tested** : 29 May 2024  
**Unique Number** : 5787462 **Diagnosed** : 29 May 2024 - Kevin Marson  
**Test Package** : MAR 2 ( Additional Tests: KV100, TAN Man, VI )

**Suncor - Terra Nova Projects**  
 Scotia Centre, 235 Water Street  
 St. John's, NL  
 CA A1C 1B6  
 Contact: Josh Hynes  
 joshynes@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.