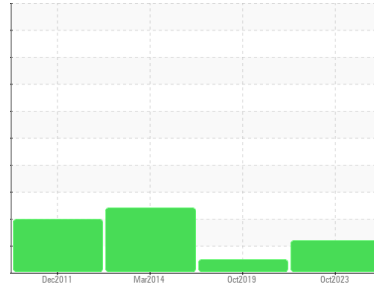


# PROBLEM SUMMARY

Area  
**Gas Compression [450210547]**  
 Machine Id  
**Pump - Methanol Wellhead Inj Gearbox Lube (S/N Sample Tag: PD-42011)**  
 Component  
**Gearbox**  
 Fluid  
**PETRO CANADA ENDURATEX EP 100 (--- GAL)**

Sample Rating Trend



**VISUAL METAL**




**COMPONENT CONDITION SUMMARY**

No relevant graphs to display

**RECOMMENDATION**

We advise that you check for visible metal particles in the oil. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

**PROBLEMATIC TEST RESULTS**

Sample Status				ABNORMAL	NORMAL	SEVERE
White Metal	scalar	Visual*	NONE	▲ LIGHT	NONE	NONE
PrtFilter					no image	no image

Customer Id: TERHAM  
 Sample No.: PC  
 Lab Number: 02590282  
 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](mailto:Kevin.Marson@wearcheck.com)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check For Visual Metal	---	---	?	We advise that you check for visible metal particles in the oil.

## HISTORICAL DIAGNOSIS

**08 Oct 2019 Diag: Bill Quesnel**

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



ISO



**22 Mar 2014 Diag: Kevin Marson**

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Check seals and/or filters for points of contaminant entry. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Particles >6µm are severely high. Particles >14µm are notably high. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



ISO



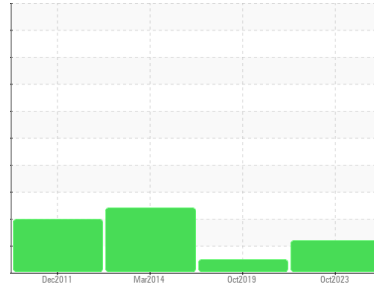
**12 Dec 2011 Diag: Kevin Marson**

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. Particles >71µm, particles >14µm, particles >21µm, particles >38µm and particles >6µm are abnormally high. The condition of oil is suitable for further service.

view report



Area  
**Gas Compression [450210547]**  
 Machine Id  
**Pump - Methanol Wellhead Inj Gearbox Lube (S/N Sample Tag: PD-42011)**  
 Component  
**Gearbox**  
 Fluid  
**PETRO CANADA ENDURATEX EP 100 (--- GAL)**



**DIAGNOSIS**

**Recommendation**  
 We advise that you check for visible metal particles in the oil. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

**Wear**  
 Light concentration of visible metal present. Gear wear is indicated.

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

**Fluid Condition**  
 The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**SAMPLE INFORMATION**

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PC</b>	PC	PC
Sample Date	Client Info	<b>05 Oct 2023</b>	08 Oct 2019	22 Mar 2014
Machine Age	days	<b>0</b>	0	0
Oil Age	days	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	NORMAL	SEVERE

**WEAR METALS**

method	limit/base	current	history1	history2
PQ	ASTM D8184*	<b>37</b>	6	---
Iron	ppm	<b>19</b>	3	3
Chromium	ppm	<b>0</b>	0	0
Nickel	ppm	<b>&lt;1</b>	<1	<1
Titanium	ppm	<b>0</b>	0	0
Silver	ppm	<b>&lt;1</b>	<1	0
Aluminum	ppm	<b>0</b>	0	<1
Lead	ppm	<b>0</b>	0	0
Copper	ppm	<b>9</b>	2	1
Tin	ppm	<b>&lt;1</b>	0	<1
Antimony	ppm	<b>0</b>	<1	0
Vanadium	ppm	<b>0</b>	0	0
Beryllium	ppm	<b>0</b>	0	0
Cadmium	ppm	<b>0</b>	0	<1

**ADDITIVES**

method	limit/base	current	history1	history2
Boron	ppm	<b>51</b>	66	55
Barium	ppm	<b>&lt;1</b>	<1	0
Molybdenum	ppm	<b>0</b>	0	0
Manganese	ppm	<b>0</b>	<1	<1
Magnesium	ppm	<b>&lt;1</b>	<1	0
Calcium	ppm	<b>2</b>	<1	1
Phosphorus	ppm	<b>232</b>	264	229
Zinc	ppm	<b>7</b>	1	1
Sulfur	ppm	<b>3907</b>	4884	3944
Lithium	ppm	<b>&lt;1</b>	<1	<1

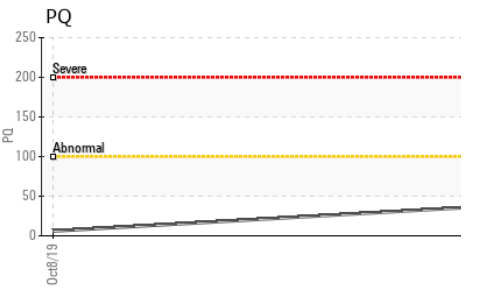
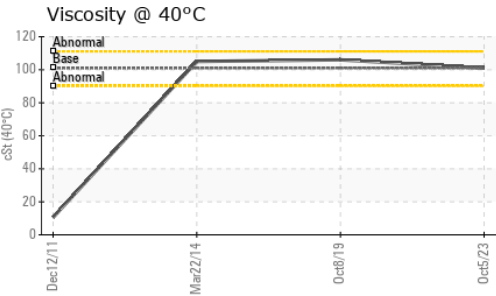
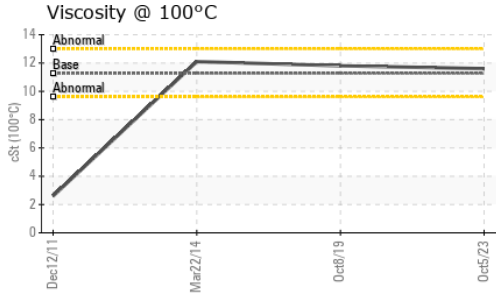
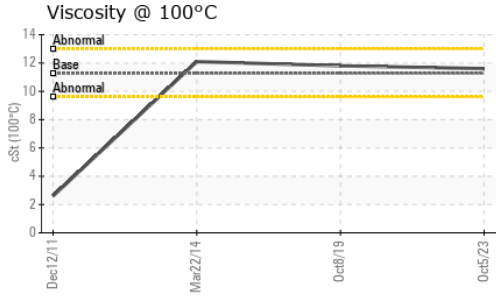
**CONTAMINANTS**

method	limit/base	current	history1	history2
Silicon	ppm	<b>2</b>	<1	2
Sodium	ppm	<b>2</b>	0	<1
Potassium	ppm	<b>0</b>	<1	0

**FLUID DEGRADATION**

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	<b>0.42</b>	0.421	0.26

# OIL ANALYSIS REPORT

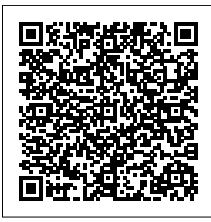
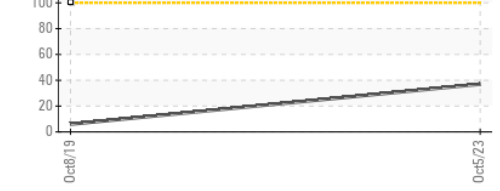
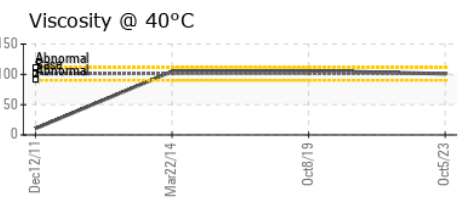
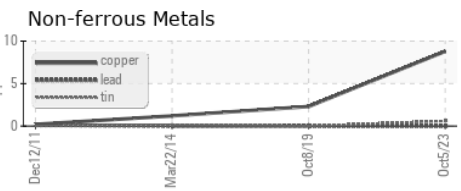
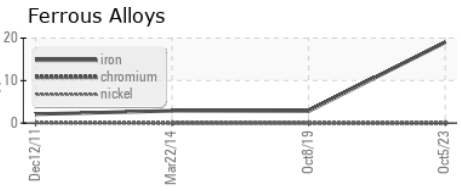


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	▲ LIGHT	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	101	106	105
Visc @ 100°C	cSt	ASTM D7279(m)	11.27	11.8	12.1
Viscosity Index (VI)	Scale	ASTM D2270*	97	102	105

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

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC  
**Lab Number** : 02590282  
**Unique Number** : 5659348  
**Test Package** : MAR 2 ( Additional Tests: BottomAnalysis, FILTERPATCH, KV100, TAN Man, VI )  
**Received** : 19 Oct 2023  
**Diagnosed** : 22 Oct 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.