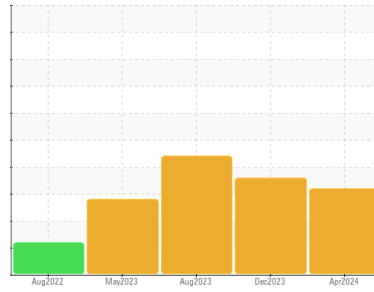




# PROBLEM SUMMARY

## Sample Rating Trend



ISO



Machine Id

**BL-43**

Component

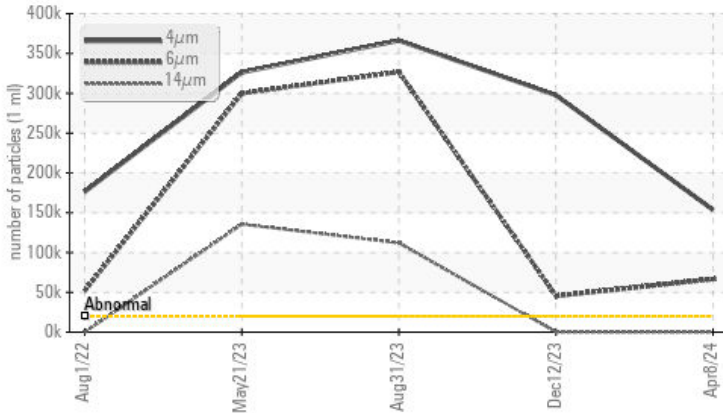
**East Gearbox**

Fluid

**PETRO CANADA SYNDURO SHB ISO 220 (2 GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

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.

## PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	SEVERE	ABNORMAL
Particles >4µm	ASTM D7647	>20000	▲ <b>153609</b>	▲ 297611	▲ 366322
Particles >6µm	ASTM D7647	>5000	▲ <b>66678</b>	▲ 45502	▲ 326832
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ <b>24/23/15</b>	▲ 25/23/15	▲ 26/26/24

Customer Id: MONHAL  
 Sample No.: SBP0000907  
 Lab Number: 06151077  
 Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Wes Davis +1 905-569-8600 x223  
[wesd@wearcheck.ca](mailto:wesd@wearcheck.ca)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Check Breathers	---	---	?	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.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

## HISTORICAL DIAGNOSIS

ISO



### 12 Dec 2023 Diag: Wes Davis

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. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report



DIRT



### 31 Aug 2023 Diag: Don Baldrige

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. Gear wear is indicated. All other component wear rates are normal. There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report



WEAR



### 21 May 2023 Diag: Don Baldrige

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. Gear wear is indicated. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

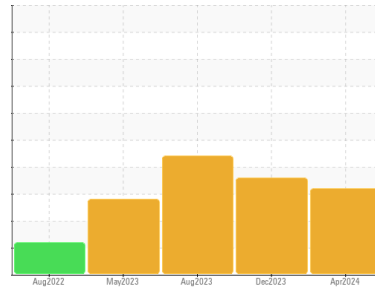
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**BL-43**  
 Component  
**East Gearbox**  
 Fluid  
**PETRO CANADA SYNDURO SHB ISO 220 (2 GAL)**

## DIAGNOSIS

### ▲ Recommendation

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.

### Wear

All component wear rates are normal.

### ▲ Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>SBP0000907</b>	SBP0001139	SBP0001825
Sample Date	Client Info		<b>08 Apr 2024</b>	12 Dec 2023	31 Aug 2023
Machine Age	Client Info		<b>0</b>	0	0
Oil Age	Client Info		<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>SEVERE</b>	SEVERE	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		<b>53</b>	41	104
Iron	ppm ASTM D5185m	>200	<b>71</b>	46	▲ 143
Chromium	ppm ASTM D5185m	>15	<b>&lt;1</b>	<1	2
Nickel	ppm ASTM D5185m	>15	<b>2</b>	<1	5
Titanium	ppm ASTM D5185m		<b>0</b>	0	0
Silver	ppm ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm ASTM D5185m	>25	<b>1</b>	0	2
Lead	ppm ASTM D5185m	>100	<b>0</b>	0	0
Copper	ppm ASTM D5185m	>200	<b>3</b>	<1	2
Tin	ppm ASTM D5185m	>25	<b>&lt;1</b>	0	0
Vanadium	ppm ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm ASTM D5185m		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m		<b>0</b>	0	0
Barium	ppm ASTM D5185m	5.0	<b>0</b>	0	7
Molybdenum	ppm ASTM D5185m		<b>0</b>	0	0
Manganese	ppm ASTM D5185m		<b>2</b>	<1	<1
Magnesium	ppm ASTM D5185m	5.0	<b>2</b>	0	5
Calcium	ppm ASTM D5185m	5.0	<b>3</b>	0	0
Phosphorus	ppm ASTM D5185m	100	<b>135</b>	119	311
Zinc	ppm ASTM D5185m	5.0	<b>&lt;1</b>	2	128
Sulfur	ppm ASTM D5185m	1900	<b>2652</b>	2094	746

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m	>50	<b>13</b>	6	▲ 23
Sodium	ppm ASTM D5185m		<b>2</b>	0	0
Potassium	ppm ASTM D5185m	>20	<b>2</b>	0	1
Water	% ASTM D6304	>0.2	<b>0.00</b>	0.003	0.003
ppm Water	ppm ASTM D6304	>2000	<b>0</b>	34	38.2

## FLUID CLEANLINESS

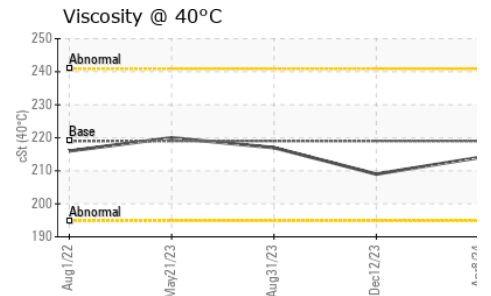
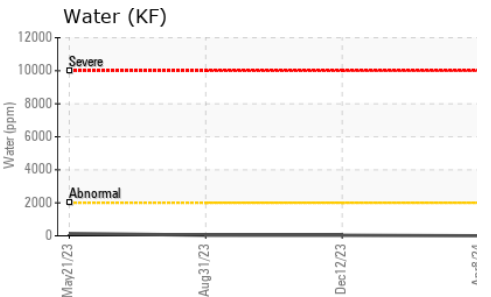
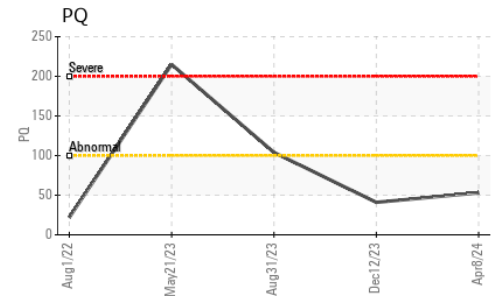
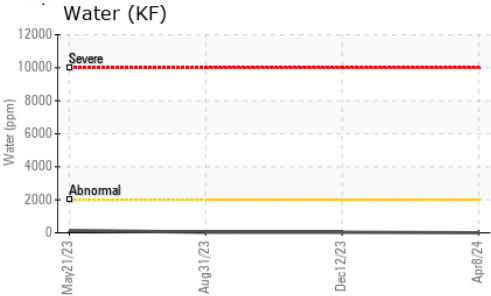
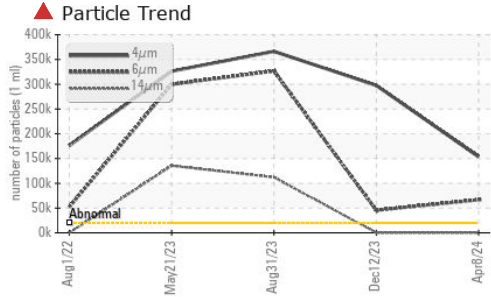
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ <b>153609</b>	▲ 297611	▲ 366322
Particles >6µm	ASTM D7647	>5000	▲ <b>66678</b>	▲ 45502	▲ 326832
Particles >14µm	ASTM D7647	>640	<b>233</b>	250	▲ 112107
Particles >21µm	ASTM D7647	>160	<b>31</b>	43	▲ 15550
Particles >38µm	ASTM D7647	>40	<b>1</b>	1	3
Particles >71µm	ASTM D7647	>10	<b>1</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ <b>24/23/15</b>	▲ 25/23/15	▲ 26/26/24

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045	0.3	<b>0.44</b>	0.39	0.64



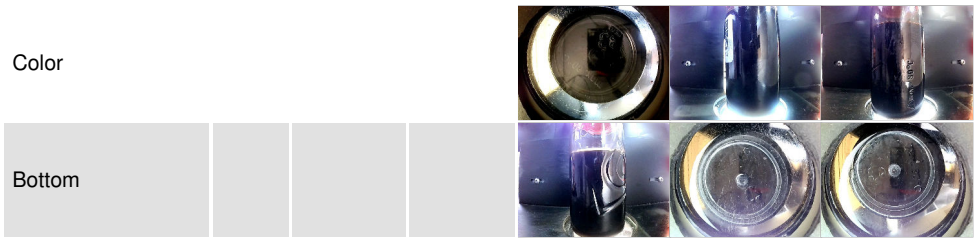
# OIL ANALYSIS REPORT



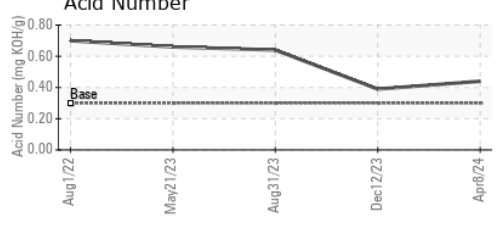
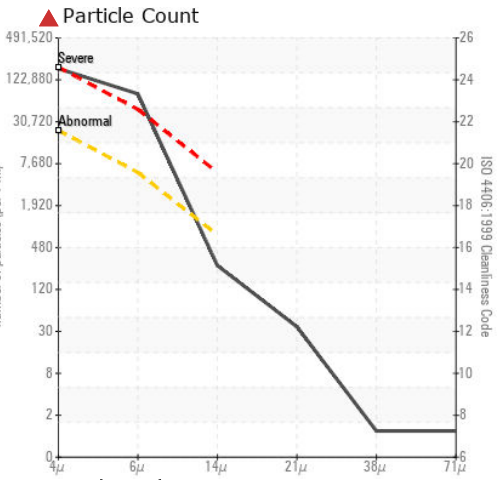
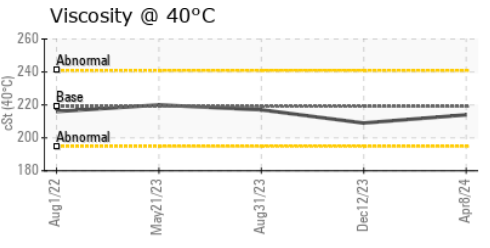
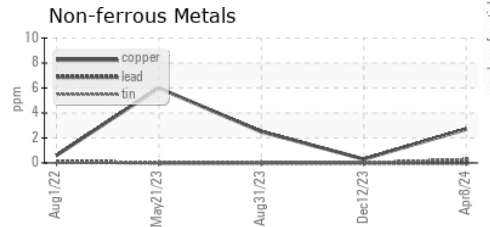
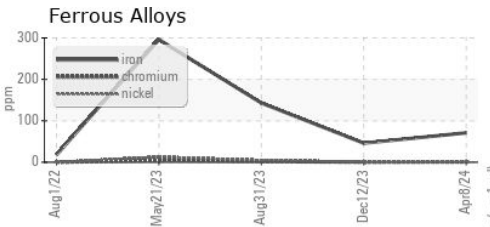
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	219	214	209

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0000907  
**Lab Number** : 06151077  
**Unique Number** : 10981155  
**Test Package** : PLANT  
**Received** : 16 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 18 Apr 2024 - Wes Davis

**MONOLITH**  
 27077 SW 42ND ST  
 HALLAM, NE  
 US 68368  
 Contact: ALANA WALLACE  
 alana.wallace@monolith-corp.com

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)