

PROBLEM SUMMARY

Sample Rating Trend



ISO



Machine Id
1851-5419-8003

Component
Gearbox

Fluid
PETRO CANADA SYNDURO SHB ISO150 (15 LTR)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	---	---
Particles >4µm	ASTM D7647	>20000	▲ 42566	---	---
Particles >6µm	ASTM D7647	>5000	▲ 5939	---	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 23/20/12	---	---

Customer Id: INCVOS
Sample No.: PC0070669
Lab Number: 02578543
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
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RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS



Machine Id
1851-5419-8003

Component
Gearbox

Fluid
PETRO CANADA SYNDURO SHB ISO150 (15 LTR)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

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	PC0070669	---	---
Sample Date	Client Info	08 Aug 2023	---	---
Machine Age	hrs	Client Info	0	---
Oil Age	hrs	Client Info	0	---
Oil Changed	Client Info	Not Chngd	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	---	---
Iron	ppm	ASTM D5185(m) >200	5	---
Chromium	ppm	ASTM D5185(m) >15	0	---
Nickel	ppm	ASTM D5185(m) >15	0	---
Titanium	ppm	ASTM D5185(m)	0	---
Silver	ppm	ASTM D5185(m)	0	---
Aluminum	ppm	ASTM D5185(m) >25	<1	---
Lead	ppm	ASTM D5185(m) >100	0	---
Copper	ppm	ASTM D5185(m) >200	<1	---
Tin	ppm	ASTM D5185(m) >25	0	---
Antimony	ppm	ASTM D5185(m) >5	0	---
Vanadium	ppm	ASTM D5185(m)	0	---
Beryllium	ppm	ASTM D5185(m)	0	---
Cadmium	ppm	ASTM D5185(m)	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<1	---
Barium	ppm	ASTM D5185(m) 5.0	0	---
Molybdenum	ppm	ASTM D5185(m)	0	---
Manganese	ppm	ASTM D5185(m)	0	---
Magnesium	ppm	ASTM D5185(m) 5.0	<1	---
Calcium	ppm	ASTM D5185(m) 5.0	<1	---
Phosphorus	ppm	ASTM D5185(m) 100	90	---
Zinc	ppm	ASTM D5185(m) 5.0	2	---
Sulfur	ppm	ASTM D5185(m) 1900	2174	---
Lithium	ppm	ASTM D5185(m)	<1	---

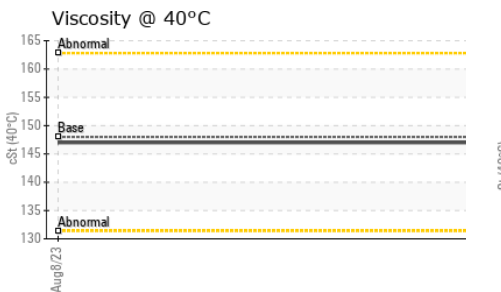
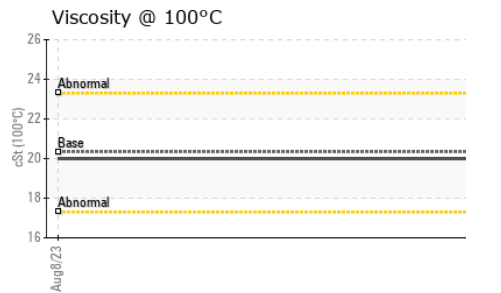
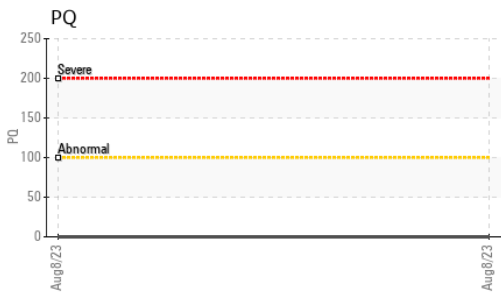
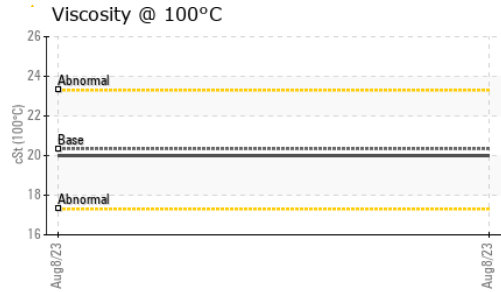
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	5	---
Sodium	ppm	ASTM D5185(m)	<1	---
Potassium	ppm	ASTM D5185(m) >20	0	---

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 42566	---
Particles >6µm	ASTM D7647	>5000	▲ 5939	---
Particles >14µm	ASTM D7647	>640	39	---
Particles >21µm	ASTM D7647	>160	8	---
Particles >38µm	ASTM D7647	>40	0	---
Particles >71µm	ASTM D7647	>10	0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 23/20/12	---

OIL ANALYSIS REPORT



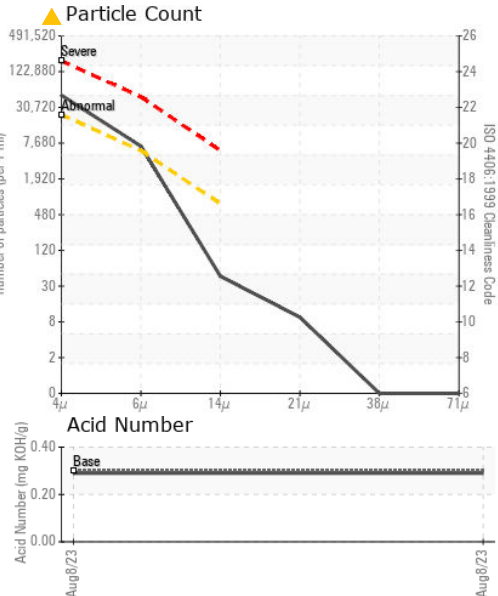
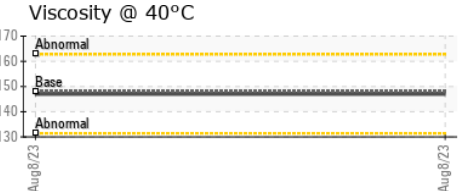
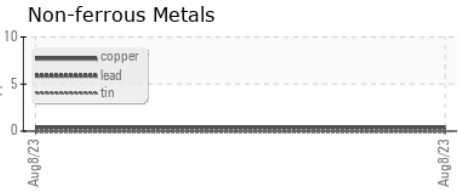
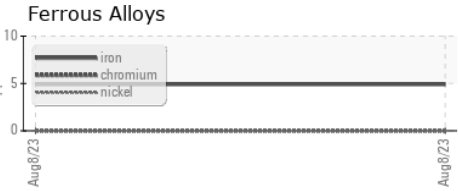
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.3	0.29	---	---

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	148	147	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	20.34	20.0	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	159	157	---	---

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0070669 **Received** : 25 Aug 2023
Lab Number : 02578543 **Diagnosed** : 29 Aug 2023
Unique Number : 5631603 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KV100, PQ, PrtCount, VI)

Vale - Voisey's Bay
 Voisey's Bay Mine Site, P.O. Box 7001, Stn. C Happy Valley
 Goose Bay, NL
 CA A0P 1C0
 Contact: Robert Feltham
 robert.feltham@vale.com

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.

T:
F: x