



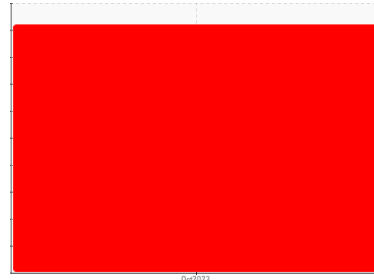
# PROBLEM SUMMARY

Sample Rating Trend

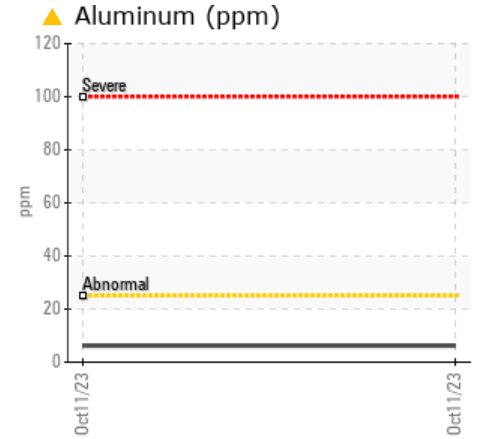
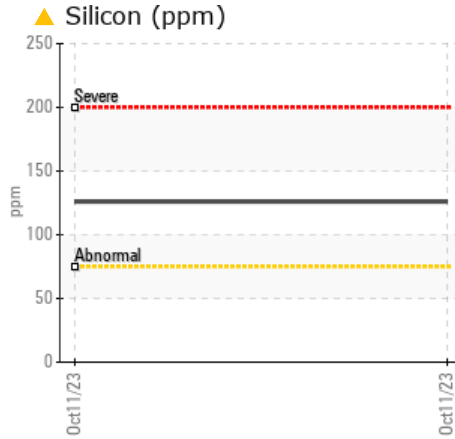
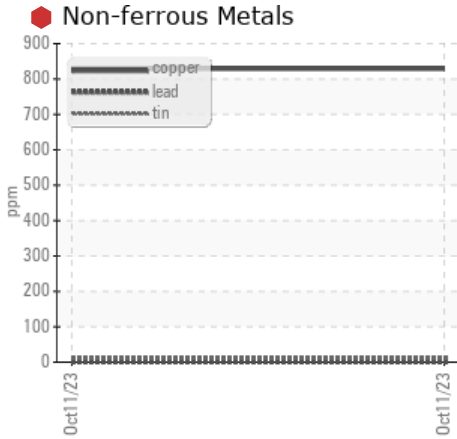
**WEAR**



Machine Id  
**UNKNOWN WESTERN STAR 02-5070 - Western star tractor (S/N 5KJNABFG7NPNL8134)**  
 Component  
**Front Differential**  
 Fluid  
**PETRO CANADA TRAXON SYNTHETIC 75W90 (--- GAL)**



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>SEVERE</b>	---	---
Aluminum	ppm	ASTM D5185m	>25	▲ <b>6</b>	---	---
Copper	ppm	ASTM D5185m	>100	● <b>829</b>	---	---
Tin	ppm	ASTM D5185m	>10	▲ <b>11</b>	---	---
Silicon	ppm	ASTM D5185m	>75	▲ <b>126</b>	---	---

Customer Id: CONLINNE  
 Sample No.: SBP0004854  
 Lab Number: 05980767  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
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.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Machine Id  
**UNKNOWN WESTERN STAR 02-5070 - Western star tractor (S/N 5KJNABFG7NPNL8134)**

Component  
**Front Differential**

Fluid  
**PETRO CANADA TRAXON SYNTHETIC 75W90 (--- GAL)**



## DIAGNOSIS

### Recommendation

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

### Wear

Bearing and/or bushing wear is indicated.

### Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>SBP0004854</b>	---	---
Sample Date	Client Info		<b>11 Oct 2023</b>	---	---
Machine Age	hrs	Client Info	<b>4289</b>	---	---
Oil Age	hrs	Client Info	<b>2242</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>SEVERE</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	<b>199</b>	---	---
Chromium	ppm	ASTM D5185m >10	<b>3</b>	---	---
Nickel	ppm	ASTM D5185m >10	<b>1</b>	---	---
Titanium	ppm	ASTM D5185m	<b>0</b>	---	---
Silver	ppm	ASTM D5185m	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m >25	<b>6</b>	---	---
Lead	ppm	ASTM D5185m >25	<b>0</b>	---	---
Copper	ppm	ASTM D5185m >100	<b>829</b>	---	---
Tin	ppm	ASTM D5185m >10	<b>11</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 328	<b>256</b>	---	---
Barium	ppm	ASTM D5185m 1	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Manganese	ppm	ASTM D5185m	<b>7</b>	---	---
Magnesium	ppm	ASTM D5185m 1	<b>1</b>	---	---
Calcium	ppm	ASTM D5185m 7	<b>8</b>	---	---
Phosphorus	ppm	ASTM D5185m 1145	<b>1334</b>	---	---
Zinc	ppm	ASTM D5185m 3	<b>10</b>	---	---
Sulfur	ppm	ASTM D5185m 17909	<b>25609</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>126</b>	---	---
Sodium	ppm	ASTM D5185m	<b>3</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>2</b>	---	---

## VISUAL

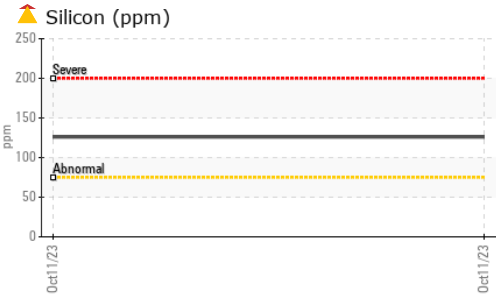
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	---	---
Precipitate	scalar	*Visual NONE	<b>NONE</b>	---	---
Silt	scalar	*Visual NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual >.2	<b>NEG</b>	---	---
Free Water	scalar	*Visual	<b>NEG</b>	---	---

## FLUID PROPERTIES

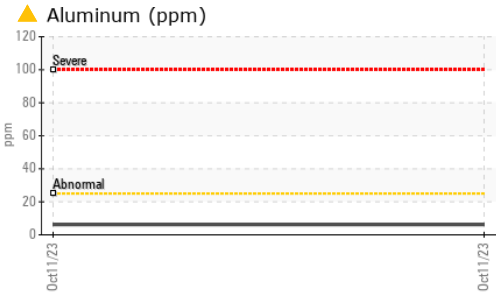
	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 99.6	<b>113</b>	---	---



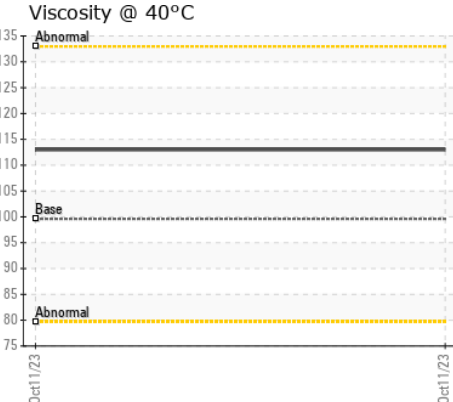
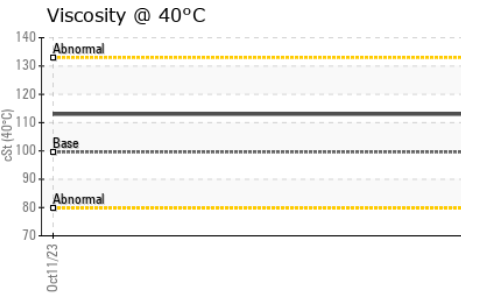
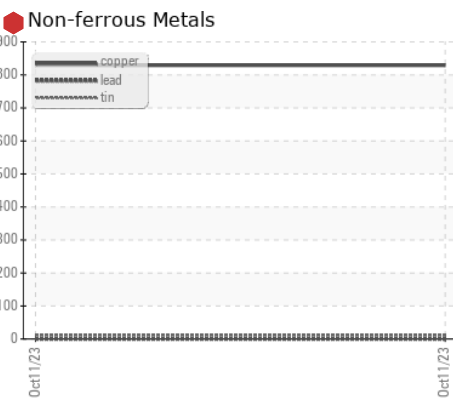
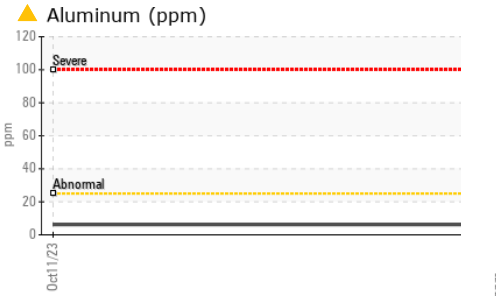
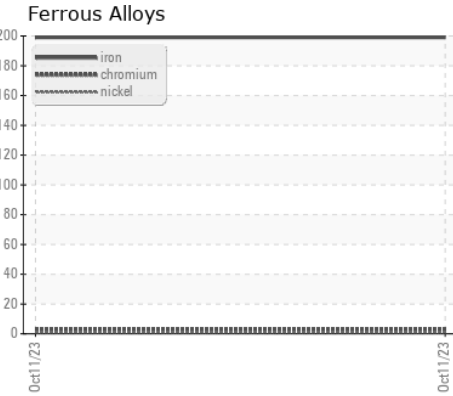
# OIL ANALYSIS REPORT



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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0004854 **Received** : 16 Oct 2023  
**Lab Number** : **05980767** **Diagnosed** : 18 Oct 2023  
**Unique Number** : 10698062 **Diagnostician** : Don Baldridge  
**Test Package** : FLEET

**Constructors Inc. - 603659**  
 1815 Y Street  
 Lincoln, NE  
 US 68508  
 Contact: Jack Linhart  
 jackl@constructorslincoln.com  
 T: (402)434-2157  
 F:

Certificate L2367  
 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)