

## **OIL ANALYSIS REPORT**

### Area SCHTRUCK 6341 [SCHTRUCK]

Front Diesel Engine Fluid PETRO CANADA DURON SHP 15W40 (--- 0

#### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### 🔺 Wear

Valve wear is indicated.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Nickel Titanium Silver Aluminum Lead Copper	mls mls	method Client Info Client Info Client Info Client Info Client Info Client Info MC Method WC Method WC Method WC Method WC Method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base limit/base >6.0 >0.2 limit/base >100	د دیت د دیت SBP0007706 21 Jun 2024 464540 34633 Changed ABNORMAL Current <1.0 NEG NEG NEG 34 34 1	history1 SBP0005622 14 Sep 2023 429907 38475 Changed ABNORMAL history1 0.3 NEG NEG NEG history1 27 <1	history2   SBP0002577   07 Feb 2023   391432   33593   Changed   SEVERE   history2   <1.0   NEG   0.10   history2   40
SAMPLE INFORM Sample Number Sample Date Machine Age Oil Age Oil Changed Sample Status CONTAMINATION Fuel Water Glycol WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	mls mls V ppm ppm ppm ppm ppm	method Client Info Client Info Client Info Client Info Client Info MC Method WC Method WC Method WC Method ASTM D5185m ASTM D5185m	limit/base limit/base >6.0 >0.2 limit/base >100 >20	Current SBP0007706 21 Jun 2024 464540 34633 Changed ABNORMAL ABNORMAL current ABNORMAL SU CURRENT NEG NEG SU CURRENT	history1   SBP0005622   14 Sep 2023   429907   38475   Changed   ABNORMAL   0.3   NEG   NEG   history1   27	SBP0002577 07 Feb 2023 391432 33593 Changed SEVERE history2 <1.0 NEG ▲ 0.10 history2
Sample Number Sample Date Machine Age Dil Age Dil Changed Sample Status CONTAMINATION Fuel Water Glycol WEAR METALS ron Chromium Nickel Fitanium Silver Aluminum Lead Copper	mls mls V ppm ppm ppm ppm ppm	Client Info Client Info Client Info Client Info Client Info MC Method WC Method WC Method WC Method WC Method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >6.0 >0.2 limit/base >100 >20	SBP0007706 21 Jun 2024 464540 34633 Changed ABNORMAL current < 1.0 NEG NEG SUR Current 34	SBP0005622 14 Sep 2023 429907 38475 Changed ABNORMAL 0.3 0.3 NEG NEG NEG history1 27	SBP0002577 07 Feb 2023 391432 33593 Changed SEVERE history2 <1.0 NEG ▲ 0.10 history2
Sample Date Machine Age Dil Age Dil Changed Sample Status CONTAMINATION Fuel Nater Glycol WEAR METALS ron Chromium Vickel Fitanium Silver Aluminum Lead Copper	mls V ppm ppm ppm ppm ppm	Client Info Client Info Client Info Client Info Client Info MC Method WC Method WC Method WC Method ASTM D5185m ASTM D5185m ASTM D5185m	>6.0 >0.2 limit/base >100 >20	21 Jun 2024 464540 34633 Changed ABNORMAL Current <1.0 NEG NEG Current 34	14 Sep 2023 429907 38475 Changed ABNORMAL 0.3 NEG NEG history1 27	07 Feb 2023 391432 33593 Changed SEVERE history2 <1.0 NEG ▲ 0.10 history2
Machine Age Dil Age Dil Changed Sample Status CONTAMINATION Fuel Water Glycol WEAR METALS ron Chromium Vickel Fitanium Silver Aluminum Lead Copper	mls V ppm ppm ppm ppm ppm	Client Info Client Info Client Info Client Info WC Method WC Method WC Method WC Method ASTM D5185m ASTM D5185m ASTM D5185m	>6.0 >0.2 limit/base >100 >20	464540 34633 Changed ABNORMAL current <1.0 NEG NEG NEG current 34	429907 38475 Changed ABNORMAL 0.3 0.3 NEG NEG history1 27	391432 33593 Changed SEVERE history2 <1.0 NEG ▲ 0.10 history2
Dil Age Dil Age Dil Changed Sample Status CONTAMINATION Fuel Water Glycol WEAR METALS ron Chromium Nickel Fitanium Silver Aluminum Lead Copper	mls V ppm ppm ppm ppm ppm	Client Info Client Info Method WC Method WC Method WC Method MC Method ASTM D5185m ASTM D5185m ASTM D5185m	>6.0 >0.2 limit/base >100 >20	34633 Changed ABNORMAL current <1.0 NEG NEG current 34	38475 Changed ABNORMAL 0.3 0.3 NEG NEG history1 27	33593 Changed SEVERE history2 <1.0 NEG ▲ 0.10 history2
Dil Changed Sample Status CONTAMINATION Fuel Water Glycol WEAR METALS ron Chromium Nickel Fitanium Silver Aluminum Lead Copper	ppm ppm ppm ppm ppm	Client Info method WC Method WC Method WC Method MC Method ASTM D5185m ASTM D5185m ASTM D5185m	>6.0 >0.2 limit/base >100 >20	Changed ABNORMAL current <1.0 NEG NEG current 34	Changed ABNORMAL 0.3 NEG NEG history1 27	Changed SEVERE history2 <1.0 NEG ▲ 0.10 history2
Sample Status CONTAMINATIO Fuel Water Glycol WEAR METALS ON Chromium Nickel Fitanium Silver Aluminum Lead Copper	ppm ppm ppm ppm ppm	method WC Method WC Method WC Method WC Method ASTM D5185m ASTM D5185m ASTM D5185m	>6.0 >0.2 limit/base >100 >20	ABNORMAL current <1.0 NEG NEG current 34	ABNORMAL history1 0.3 NEG NEG history1 27	SEVERE history2 <1.0 NEG ▲ 0.10 history2
CONTAMINATION Fuel Water Glycol WEAR METALS ron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm ppm	WC Method WC Method WC Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>6.0 >0.2 limit/base >100 >20	current <1.0 NEG NEG current 34	history1 0.3 NEG NEG history1 27	history2 <1.0 NEG ▲ 0.10 history2
Fuel Water Glycol WEAR METALS WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm ppm	WC Method WC Method WC Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>6.0 >0.2 limit/base >100 >20	<1.0 NEG NEG current 34	0.3 NEG NEG history1 27	<1.0 NEG ▲ 0.10 history2
Water Glycol WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm	WC Method WC Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 limit/base >100 >20	NEG NEG current 34	NEG NEG history1 27	NEG • 0.10 history2
Glycol WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm	WC Method method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >100 >20	NEG current 34	NEG history1 27	▲ 0.10 history2
WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20	current 34	history1 27	history2
Iron Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>100 >20	34	27	
Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>20	-		40
Chromium Nickel Titanium Silver Aluminum Lead Copper	ppm ppm ppm	ASTM D5185m ASTM D5185m		1	~1	
Titanium Silver Aluminum Lead Copper	ppm ppm	ASTM D5185m	>2			1
Silver Aluminum Lead Copper	ppm			<u> </u>	<b>6</b>	<1
Aluminum Lead Copper		ACTM DEADE		<1	<1	0
Lead Copper	ppm	ASTM D5185m	>2	0	0	0
Copper		ASTM D5185m	>25	10	6	24
	ppm	ASTM D5185m	>40	<1	0	2
	ppm	ASTM D5185m	>330	2	2	6
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	2	20	17
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	60	59	18	57
Manganese	ppm	ASTM D5185m	0	1	1	2
Magnesium	ppm	ASTM D5185m	1010	958	383	480
Calcium	ppm	ASTM D5185m	1070	1292	1885	1683
Phosphorus	ppm	ASTM D5185m	1150	1021	897	664
Zinc	ppm	ASTM D5185m	1270	1332	1138	918
Sulfur	ppm	ASTM D5185m	2060	3190	3468	2286
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7	7	10
Sodium	ppm	ASTM D5185m		11	18	<b>A</b> 251
Potassium	ppm	ASTM D5185m	>20	20	37	<b>4</b> 35
Chlorine	ppm	ASTM D5185m				
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.7	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	9.9	9.8	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.6	23.9	24.0
		method	limit/base	current	history1	history2
FLUID DEGRADA			>25	20.1		
FLUID DEGRADA	Abs/.1mm	*ASTM D7414			19.3	25.2

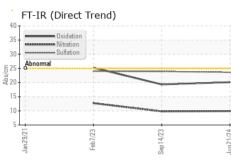
Sample Rating Trend

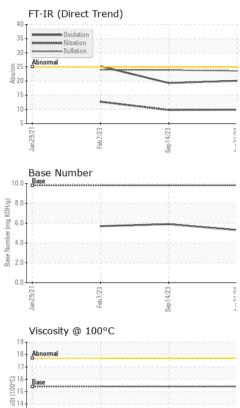
Submitted By: CASEY WILKIE

**WEAR** 



# **OIL ANALYSIS REPORT**

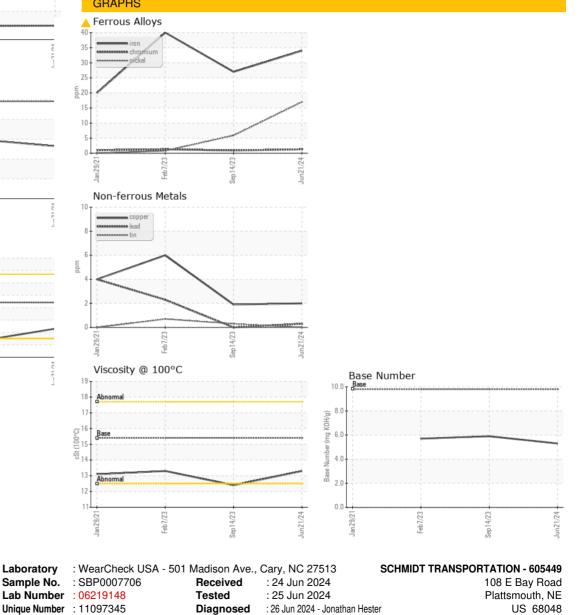




Feb7/23.

Sep14/23 -

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	12.4	13.3
GRAPHS						





13 - Abno

12.

Jan29/21

 Certificate 12367
 Test Package
 : FLEET

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
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 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012).
 discuss this sample report, contact Customer Service at 1-800-237-1369.</td

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