

## **OIL ANALYSIS REPORT**

#### Area (51490Z) Walgreens - Tractor Machine Id [Walgreens - Tractor] 136A63310

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (11 GAL)

### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. No other contaminants were detected in the oil.

#### Fluid Condition

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

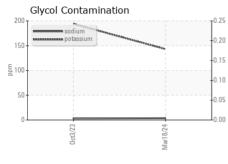
63310						
AL)			0ct2023	Mar2024		
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0106547	PCA0094976	
Sample Date		Client Info		18 Mar 2024	03 Oct 2023	
Machine Age	mls	Client Info		164320	103856	
Oil Age	mls	Client Info		50000	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINA	TION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR META	LS	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>80	62	41	
Chromium	ppm	ASTM D5185m	>5	6	4	
Nickel	ppm	ASTM D5185m	>2	1	<1	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	<1	0	
Aluminum	ppm	ASTM D5185m	>30	59	70	
_ead	ppm	ASTM D5185m	>30	<1	<1	
Copper	ppm	ASTM D5185m	>150	105	85	
Гin	ppm	ASTM D5185m	>5	2	2	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	16	18	
Barium	ppm	ASTM D5185m	0	2	0	
Molybdenum	ppm	ASTM D5185m	50	129	112	
Manganese	ppm	ASTM D5185m	0	2	2	
Magnesium	ppm	ASTM D5185m	950	1376	866	
Calcium	ppm	ASTM D5185m	1050	2004	1388	
Phosphorus	ppm	ASTM D5185m	995	1441	903	
Zinc	ppm	ASTM D5185m	1180	1870	1171	
Sulfur	ppm	ASTM D5185m	2600	3881	2185	
CONTAMINA	NTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	14	8	
Sodium	ppm	ASTM D5185m		4	3	
Potassium	ppm	ASTM D5185m	>20	143	194	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.8	0.7	
Nitration	Abs/cm	*ASTM D7624	>20	10.5	10.5	
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.5	24.1	
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.9	24.1	
Oxidution	/100/.111111	7101111071111	200	21.5		

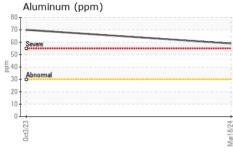
Sample Rating Trend

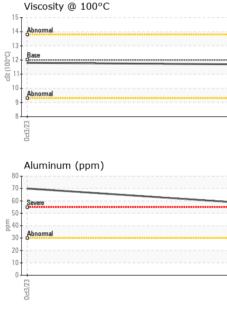
NORMAL



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VISUAL		method	limit/base	current	history1	histor
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	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor Emulsified Water	scalar scalar	*Visual *Visual	NORML >0.2	NORML NEG	NORML	
Free Water	scalar	*Visual	>0.2	NEG	NEG	
			11			
FLUID PROPE		method	limit/base	current	history1	histor
Visc @ 100°C	cSt	ASTM D445	12.00	11.7	11.8	
GRAPHS						
Ferrous Alloys						
iron						
60 - chromium						
50 -						
40						
40 30						
<sup>-</sup> 30 -						
20 -						
10						
0						
0ct3/23			8/24			
Oct			Mar18/24			
No. Common Mada	1-		~			
Non-ferrous Meta	IS					
120 copper 1						
100						
tin						
80-						
:						
60-						
40 -						
40 -						
20-						
0						
0ct3/23			8/2			
0			Mar18/24			
Viccosity @ 100%	-		_			
Viscosity @ 100°C	-			Base Number		
15			6	.0 T		
14 - Abnormal						
T			(5	.0		
13			Base Number (mg KOH(g) c			
Base			N B			
			E	.0+		
11- 11-			qu			
10			2 2	.0 +		
Abnormal						
9				.0 +		
8				0		
8 <del>1.</del>				0 + +		