

## **OIL ANALYSIS REPORT**

Sample Rating Trend

# NORMAL

## Area (15590Z) Walgreens - Tractor [Walgreens - Tractor] 136A61254

**Diesel Engine** 

Fluid PETRO CANADA DURON SHP 10W30 (11 GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

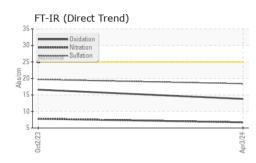
#### Fluid Condition

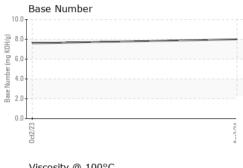
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

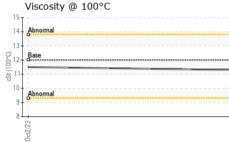
	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0093895	PCA0093864	
Sample Date		Client Info		03 Apr 2024	02 Oct 2023	
Machine Age	mls	Client Info		403824	360439	
Oil Age	mls	Client Info		403824	0	
Oil Changed		Client Info		Not Changd	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINATI	ION	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 METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	10	17	
Chromium	ppm	ASTM D5185m	>5	1	2	
Nickel	ppm	ASTM D5185m	>2	0	0	
Titanium	ppm	ASTM D5185m		2	<1	
Silver	ppm	ASTM D5185m	>3	<1	0	
Aluminum	ppm	ASTM D5185m	>30	9	10	
Lead	ppm	ASTM D5185m	>30	0	<1	
Copper	ppm	ASTM D5185m	>150	<1	89	
Tin	ppm	ASTM D5185m	>5	<1	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
				-		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 8	history1 8	history2
	ppm ppm					
Boron		ASTM D5185m	2	8	8	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	8 0	8	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	8 0 63	8 0 64	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	8 0 63 <1	8 0 64 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	8 0 63 <1 919	8 0 64 <1 972	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	8 0 63 <1 919 1078	8 0 64 <1 972 1207	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	8 0 63 <1 919 1078 1014	8 0 64 <1 972 1207 982	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	8 0 63 <1 919 1078 1014 1211	8 0 64 <1 972 1207 982 1282	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	8 0 63 <1 919 1078 1014 1211 3357	8 0 64 <1 972 1207 982 1282 2449	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	8 0 63 <1 919 1078 1014 1211 3357 current	8 0 64 <1 972 1207 982 1282 2449 history1	    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	2 0 50 950 1050 995 1180 2600	8 0 63 <1 919 1078 1014 1211 3357 current 4	8 0 64 <1 972 1207 982 1282 2449 history1 4	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >20	8 0 63 <1 919 1078 1014 1211 3357 current 4 1 14	8 0 64 <1 972 1207 982 1282 2449 history1 4 1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >20	8 0 63 <1 919 1078 1014 1211 3357 current 4 1 14	8 0 64 <1 972 1207 982 1282 2449 history1 4 1 23	     history2  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>Imit/base</b> >20	8 0 63 <1 919 1078 1014 1211 3357 current 4 1 1 14 current	8 0 64 <1 972 1207 982 1282 2449 history1 4 1 23 history1	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20 20 limit/base >20	8 0 63 <1 919 1078 1014 1211 3357 current 4 1 14 14 0.4	8 0 64 <1 972 1207 982 1282 2449 history1 4 1 23 history1 0.5	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <i>imit/base</i> >20 <i>imit/base</i> >3 >20	8 0 63 <1 919 1078 1014 1211 3357 current 4 1 14 14 0.4 6.7	8 0 64 <1 972 1207 982 1282 2449 history1 4 1 23 history1 0.5 7.8	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >20 <b>imit/base</b> >3 >20 >3	8 0 63 <1 919 1078 1014 1211 3357 current 4 1 14 current 0.4 6.7 18.4	8 0 64 <1 972 1207 982 1282 2449 history1 4 1 23 history1 0.5 7.8 19.7	     history2   history2  history2



## OIL ANALYSIS REPORT







White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	scalar scalar scalar	*Visual *Visual	NONE NONE	NONE	NONE	
Precipitate Silt Debris	scalar		NONE	NONE	NONE	
Silt Debris		*\/iouol				
Debris	and a large	*Visual	NONE	NONE	NONE	
	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Juna, Dire	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Ddor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Free Water	scalar	*Visual		NEG	NEG	
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
/isc @ 100°C	cSt	ASTM D445	12.00	11.3	11.5	
GRAPHS						
Ferrous Alloys						
iron						
nickel						
-						
+						
Annotablassis Changes to Changes		650/www.000/www.000/www.000	Meaning			
13			54			
0ct2/23			Apr3/24			
Non-ferrous Metals	_		4			
	5					
copper						
tin						
	1					
+						
53	************		24			
0ct2/23			Apr3/24			
Viscosity @ 100°C						
				Base Number		
, -			9.0	•		
Abnormal			9.0	[		

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#### ase 8 2.0 1.0 0.0 Apr3/24 -0ct2/23 pr3/24 Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Transervice - Shop 1372 - Berkeley-Moreno Valley Sample No. : PCA0093895 17500 Perris Blvd. Received : 23 Apr 2024 Lab Number : 06157292 Tested : 24 Apr 2024 Moreno Valley, CA US 92551 Unique Number : 10992715 Diagnosed : 24 Apr 2024 - Wes Davis Test Package : FLEET Contact: Ryan Cruz Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. rcruz@transervice.com T: (951)924-7131 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. F: (951)924-7151 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Submitted By: Ryan Cruz

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