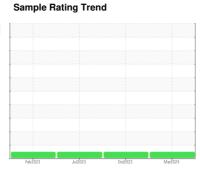


# **OIL ANALYSIS REPORT**

# (35102Z) Walgreens - Tractor [Walgreens - Tractor] 136A62586

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (11 GAL)





### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

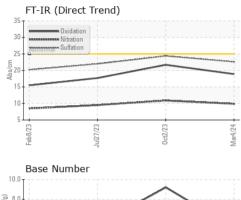
### **Fluid Condition**

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

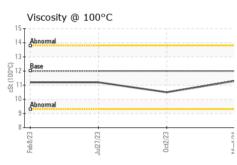
Sample Number   Client Info   PCA0119382   PCA0107362   PCA0101921   PCA0107362   PCA0101921   PCA0107362   PCA0107362   PCA0101921   PCA0107362   PCA0101921   PCA0107362   PCA0101921   PCA0107362   PCA0101921   PCA0107362   PCA0101921   PCA0107362   PCA0101921   PCA0101921   PCA0107362   PCA0101921   PCA0107362   PCA0101921   PCA0107362	SAMPLE INFORMA	ATION	method	limit/base	current	history1	history2
Client Info						•	•
Machine Age   mis   Client Info   290650   233920   208070   2010   20	·						
Coli Age		mle					
Client Info   Changed   Changed   NORMAL   NORMAL   NORMAL   NORMAL							
CONTAMINATION	_	11110					
CONTAMINATION	-		CHOIL HIIO			Ü	
Fuel		NC	method	limit/base			
Water Glycol         WC Method WC Method         >0.2         NEG NEG         NEG NEG         NEG NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >80         26         57         24           Chromium         ppm         ASTM D5185m         >5         3         2         2           Nickel         ppm         ASTM D5185m         >2         <1						•	
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >80         26         57         24           Chromium         ppm         ASTM D5185m         >5         3         2         2           Nickel         ppm         ASTM D5185m         >2         <1							
WEAR METALS				70.L	-		
Commission				limit/hase			
Chromium							
Nickel	- 1						
Titanium					-		
Silver				>2			_
Aluminum				_			
Lead	!						
Copper         ppm         ASTM D5185m         >150         24         6         11           Tin         ppm         ASTM D5185m         >5         1         <1	Aluminum	ppm	ASTM D5185m	>30			
Tin	Lead	ppm					
Vanadium         ppm         ASTM D5185m         <1         0         0           Cadmium         ppm         ASTM D5185m         <1         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         2         17         <1           Barium         ppm         ASTM D5185m         0         0         <1         0           Molybdenum         ppm         ASTM D5185m         50         66         55         65           Manganese         ppm         ASTM D5185m         0         1         <1         <1           Magnesium         ppm         ASTM D5185m         950         942         848         998           Calcium         ppm         ASTM D5185m         995         1024         954         985           Zinc         ppm         ASTM D5185m         995         1024         954         985           Zinc         ppm         ASTM D5185m         2600         2430         3267         3159           CONTAMINANTS         method         limit/base         current         history1         histo	Copper	ppm			24		
Cadmium         ppm         ASTM D5185m         <1         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         2         17         <1	Tin	ppm		>5	1	<1	<1
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron   ppm   ASTM D5185m   2   2   17   1   0	Cadmium	ppm	ASTM D5185m		<1	0	0
Barium         ppm         ASTM D5185m         0         0         <1         0           Molybdenum         ppm         ASTM D5185m         50         66         55         65           Manganese         ppm         ASTM D5185m         0         1         <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         50         66         55         65           Manganese         ppm         ASTM D5185m         0         1         <1         <1           Magnesium         ppm         ASTM D5185m         950         942         848         998           Calcium         ppm         ASTM D5185m         1050         1164         996         1207           Phosphorus         ppm         ASTM D5185m         1050         1164         996         1207           Phosphorus         ppm         ASTM D5185m         995         1024         954         985           Zinc         ppm         ASTM D5185m         1180         1245         1161         1307           Sulfur         ppm         ASTM D5185m         2600         2430         3267         3159           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         11         15         4           Sodium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/bas	Boron	ppm	ASTM D5185m	2	2	17	
Manganese         ppm         ASTM D5185m         0         1         <1         <1           Magnesium         ppm         ASTM D5185m         950         942         848         998           Calcium         ppm         ASTM D5185m         1050         1164         996         1207           Phosphorus         ppm         ASTM D5185m         995         1024         954         985           Zinc         ppm         ASTM D5185m         1180         1245         1161         1307           Sulfur         ppm         ASTM D5185m         2600         2430         3267         3159           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         11         15         4           Sodium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.1         0.9         1           Nitration <td< td=""><td>Barium</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><th>0</th><td>&lt;1</td><td>0</td></td<>	Barium	ppm	ASTM D5185m	0	0	<1	0
Magnesium         ppm         ASTM D5185m         950         942         848         998           Calcium         ppm         ASTM D5185m         1050         1164         996         1207           Phosphorus         ppm         ASTM D5185m         995         1024         954         985           Zinc         ppm         ASTM D5185m         1180         1245         1161         1307           Sulfur         ppm         ASTM D5185m         2600         2430         3267         3159           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         11         15         4           Sodium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.1         0.9         1           Nitration         Abs/cm         *ASTM D7624         >20         9.9         10.9         9.5           Sulfation	Molybdenum	ppm	ASTM D5185m	50	66	55	65
Calcium         ppm         ASTM D5185m         1050         1164         996         1207           Phosphorus         ppm         ASTM D5185m         995         1024         954         985           Zinc         ppm         ASTM D5185m         1180         1245         1161         1307           Sulfur         ppm         ASTM D5185m         2600         2430         3267         3159           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         11         15         4           Sodium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.1         0.9         1           Nitration         Abs/cm         *ASTM D7624         >20         9.9         10.9         9.5           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.6         24.4         22.0	Manganese	ppm	ASTM D5185m	0	1	<1	<1
Phosphorus         ppm         ASTM D5185m         995         1024         954         985           Zinc         ppm         ASTM D5185m         1180         1245         1161         1307           Sulfur         ppm         ASTM D5185m         2600         2430         3267         3159           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         11         15         4           Sodium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.1         0.9         1           Nitration         Abs/cm         *ASTM D7624         >20         9.9         10.9         9.5           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.6         24.4         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs	Magnesium	ppm	ASTM D5185m	950	942	848	998
Zinc         ppm         ASTM D5185m         1180         1245         1161         1307           Sulfur         ppm         ASTM D5185m         2600         2430         3267         3159           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         11         15         4           Sodium         ppm         ASTM D5185m         2         47         2           Potassium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.1         0.9         1           Nitration         Abs/cm         *ASTM D7624         >20         9.9         10.9         9.5           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.6         24.4         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM	Calcium	ppm	ASTM D5185m	1050	1164	996	1207
Sulfur         ppm         ASTM D5185m         2600         2430         3267         3159           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         11         15         4           Sodium         ppm         ASTM D5185m         2         47         2           Potassium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.1         0.9         1           Nitration         Abs/cm         *ASTM D7624         >20         9.9         10.9         9.5           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.6         24.4         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.9         21.7         17.7	Phosphorus	ppm	ASTM D5185m	995	1024	954	985
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         11         15         4           Sodium         ppm         ASTM D5185m         2         47         2           Potassium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.1         0.9         1           Nitration         Abs/cm         *ASTM D7624         >20         9.9         10.9         9.5           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.6         24.4         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.9         21.7         17.7	Zinc	ppm	ASTM D5185m	1180	1245	1161	1307
Silicon         ppm         ASTM D5185m         >20         11         15         4           Sodium         ppm         ASTM D5185m         2         47         2           Potassium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.1         0.9         1           Nitration         Abs/cm         *ASTM D7624         >20         9.9         10.9         9.5           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.6         24.4         22.0           FLUID DEGRADATION method limit/base current history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.9         21.7         17.7	Sulfur	ppm	ASTM D5185m	2600	2430	3267	3159
Sodium         ppm         ASTM D5185m         2         47         2           Potassium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.1         0.9         1           Nitration         Abs/cm         *ASTM D7624         >20         9.9         10.9         9.5           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.6         24.4         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.9         21.7         17.7	CONTAMINANT	S	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         12         9         13           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.1         0.9         1           Nitration         Abs/cm         *ASTM D7624         >20         9.9         10.9         9.5           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.6         24.4         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.9         21.7         17.7	Silicon	ppm	ASTM D5185m	>20	11	15	4
INFRA-RED	Sodium	ppm	ASTM D5185m		2	47	2
Soot %         %         *ASTM D7844 >3         1.1         0.9         1           Nitration         Abs/cm         *ASTM D7624 >20         9.9         10.9         9.5           Sulfation         Abs/.1mm         *ASTM D7415 >30         22.6         24.4         22.0           FLUID DEGRADATION method limit/base current history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         18.9         21.7         17.7	Potassium	ppm	ASTM D5185m	>20	12	9	13
Nitration         Abs/cm         *ASTM D7624         >20         9.9         10.9         9.5           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.6         24.4         22.0           FLUID DEGRADATION method limit/base current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.9         21.7         17.7	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         22.6         24.4         22.0           FLUID DEGRADATION method limit/base current history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.9         21.7         17.7	Soot %	%	*ASTM D7844	>3	1.1	0.9	1
FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     18.9     21.7     17.7	Nitration	Abs/cm	*ASTM D7624	>20	9.9	10.9	9.5
Oxidation Abs/.1mm *ASTM D7414 >25 <b>18.9</b> 21.7 17.7	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	24.4	22.0
	FLUID DEGRAD	NOITA	method	limit/base	current	history1	history2
	Oxidation /	Abs/.1mm	*ASTM D7414	>25	18.9	21.7	17.7
			ASTM D2896		5.1	9.2	5.4

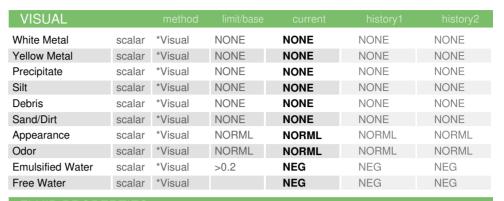


## **OIL ANALYSIS REPORT**



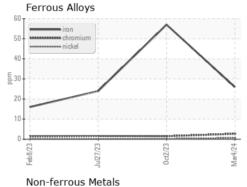
Base Nu	mber		
0.8 ase Number (mg KOH(g)		/	
g 6.0	_ /		
per (i			
4.0			
g 2.0			
0.0			
/23	/23 -	/23 -	5.0
Feb8/23	Jul27/23	0ct2/23	March

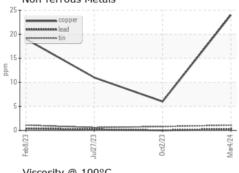


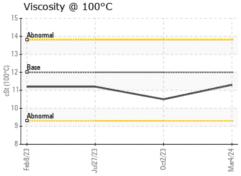


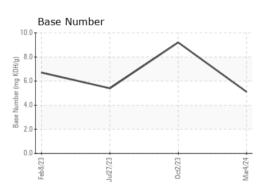
FLUID PROPE	RHES	method				history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.3	10.5	11.2

### **GRAPHS**













Certificate 12367

Laboratory Sample No.

: PCA0119382 Lab Number : 06140576

Unique Number : 10965384 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 05 Apr 2024 **Tested** Diagnosed

: 08 Apr 2024 : 08 Apr 2024 - Wes Davis

Transervice - Shop 1370 - Berkeley-Perrysburg

28727 Oregon Road Perrysburg, OH US 43551

F: (419)666-3279

Contact: Curtis Hart chart@transervice.com T: (419)666-3277

To discuss this sample report, contact Customer Service at 1-800-237-1369.  $^st$  - 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)