

# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id **152549** 

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- QTS

## 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.

Contained   Client Info   Changed   Changed   Contained   Contai	TS)				Aay2024		
Client Info   08 May 2024	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Cample Date   Client Info   08 May 2024	Sample Number		Client Info		PCA0057351		
Machine Age         mls         Client Info         325645			Client Info		08 May 2024		
Dil Age	•	mls	Client Info		_		
CONTAMINATION   method   mill/base   current   history1   history2	Oil Age	mls	Client Info		15280		
CONTAMINATION	Oil Changed		Client Info		Changed		
Fuel	Sample Status				NORMAL		
Water Glycol         WC Method WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         12             Chromium         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >4         0             Silver         ppm         ASTM D5185m         >4         0             Aluminum         ppm         ASTM D5185m         >0             Aluminum         ppm         ASTM D5185m         >40         0            Copper         ppm         ASTM D5185m         >33.0         2             Vanadium         ppm         ASTM D5185m         >15         <1             Cadmium         ppm         ASTM D5185m         0         0             Boron         ppm         ASTM D5185m         0         0	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS	Water		WC Method	>0.2	NEG		
Chromium	Glycol		WC Method		NEG		
Chromium   ppm   ASTM D5185m   >20   <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>100			
Description	Chromium	ppm	ASTM D5185m	>20	<1		
Silver	Nickel	ppm	ASTM D5185m	>4	0		
Aluminum		ppm	ASTM D5185m		0		
Lead	Silver	ppm	ASTM D5185m	>3	<1		
Copper	Aluminum	ppm	ASTM D5185m	>20	2		
Tin	_ead	ppm	ASTM D5185m	>40	0		
Vanadium         ppm         ASTM D5185m         <1             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         0             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         65             Manganese         ppm         ASTM D5185m         0         <1             Magnesium         ppm         ASTM D5185m         950         1051             Magnesium         ppm         ASTM D5185m         950         1051             Calcium         ppm         ASTM D5185m         995         1123             Phosphorus         ppm         ASTM D5185m         2600         3735             Sulfur         ppm         ASTM D5185m         2600         3735	Copper	ppm	ASTM D5185m	>330	2		
ADDITIVES		ppm	ASTM D5185m	>15	<1		
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1		
Barium	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         50         65             Manganese         ppm         ASTM D5185m         0         <1	Boron	ppm	ASTM D5185m	2	0		
Manganese         ppm         ASTM D5185m         0         <1             Magnesium         ppm         ASTM D5185m         950         1051             Calcium         ppm         ASTM D5185m         1050         1208             Phosphorus         ppm         ASTM D5185m         995         1123             Zinc         ppm         ASTM D5185m         2600         3735             Sulfur         ppm         ASTM D5185m         2600         3735             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         20         <1	Barium	ppm	ASTM D5185m	0	0		
Magnesium         ppm         ASTM D5185m         950         1051             Calcium         ppm         ASTM D5185m         1050         1208             Phosphorus         ppm         ASTM D5185m         995         1123             Zinc         ppm         ASTM D5185m         1180         1335             Sulfur         ppm         ASTM D5185m         2600         3735             Sulfur         ppm         ASTM D5185m         2600         3735             Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >25         5             Potassium         ppm         ASTM D5185m         >20         <1	Molybdenum	ppm	ASTM D5185m	50	65		
Calcium         ppm         ASTM D5185m         1050         1208             Phosphorus         ppm         ASTM D5185m         995         1123             Zinc         ppm         ASTM D5185m         1180         1335             Sulfur         ppm         ASTM D5185m         2600         3735             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         <1	Manganese	ppm	ASTM D5185m	0	<1		
Phosphorus         ppm         ASTM D5185m         995         1123             Zinc         ppm         ASTM D5185m         1180         1335             Sulfur         ppm         ASTM D5185m         2600         3735             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         <1             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         18.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 <t< td=""><td>Magnesium</td><td>ppm</td><td>ASTM D5185m</td><td>950</td><td>1051</td><td></td><td></td></t<>	Magnesium	ppm	ASTM D5185m	950	1051		
Zinc   ppm   ASTM D5185m   1180   1335       Sulfur   ppm   ASTM D5185m   2600   3735             CONTAMINANTS   method   limit/base   current   history1   history2     Silicon   ppm   ASTM D5185m   >25   5           Sodium   ppm   ASTM D5185m   2         Potassium   ppm   ASTM D5185m   >20   <1         INFRA-RED   method   limit/base   current   history1   history2     Soot %   *ASTM D7844   >3   0.2         Nitration   Abs/cm   *ASTM D7624   >20   7.3         Sulfation   Abs/.1mm *ASTM D7415   >30   18.2         FLUID DEGRADATION   method   limit/base   current   history1   history2     Oxidation   Abs/.1mm *ASTM D7414   >25   14.9	Calcium	ppm	ASTM D5185m	1050	1208		
Sulfur         ppm         ASTM D5185m         2600         3735             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         2              Potassium         ppm         ASTM D5185m         >20         <1             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/.1mm         *ASTM D7624         >20         7.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         18.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.9	Phosphorus	ppm	ASTM D5185m	995	1123		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         <1	Zinc	ppm	ASTM D5185m	1180	1335		
Solition   ppm   ASTM D5185m   >25   5	Sulfur	ppm	ASTM D5185m	2600	3735		
Sodium	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         <1             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         7.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         18.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.9	Silicon	ppm	ASTM D5185m	>25	5		
INFRA-RED	Sodium	ppm	ASTM D5185m		2		
Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         7.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         18.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.9	Potassium	ppm	ASTM D5185m	>20	<1		
Nitration         Abs/cm         *ASTM D7624         >20         7.3             Sulfation         Abs/.1mm         *ASTM D7415         >30         18.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.9	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         18.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.9	Soot %	%	*ASTM D7844	>3	0.2		
FLUID DEGRADATION method limit/base current history1 history2  Oxidation Abs/.1mm *ASTM D7414 >25 14.9	Nitration	Abs/cm	*ASTM D7624	>20	7.3		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	18.2		
	FLUID DEGRA	NOITAC	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 10.65	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9		
	Base Number (BN)	mg KOH/g	ASTM D2896		10.65		



# **OIL ANALYSIS REPORT**





Certificate 12367

Report Id: VALSTO [WUSCAR] 06188253 (Generated: 05/24/2024 00:50:15) Rev: 1

Laboratory Sample No.

: PCA0057351 Lab Number : 06188253 Unique Number : 11045005 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 22 May 2024 **Tested** : 24 May 2024

Diagnosed

: 24 May 2024 - Wes Davis

152 FRANK WEST CIRCLE STOCKTON, CA US 95206 Contact: MARCEY LIGHTFOOT

**VALLEY PACIFIC PETROLEUM SERVICES** 

To discuss this sample report, contact Customer Service at 1-800-237-1369. marcey.lightfoot@vpps.net  $^st$  - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (209)461-3611 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (209)888-6196

Contact/Location: MARCEY LIGHTFOOT - VALSTO