

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id CATERPILLAR D6 LGP 10043 (S/N KEW01175) Diesel Engine

PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

DIAGNOSIS	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		WC0899095	WC0888161	
Resample at the next service interval to monitor.	Sample Date		Client Info		10 Jul 2024	24 May 2024	
Wear	Machine Age	hrs	Client Info		1224	601	
All component wear rates are normal.	Oil Age	hrs	Client Info		623	601	
	Oil Changed		Client Info		Changed	Changed	
Contamination	Sample Status				NORMAL	ABNORMAL	
There is no indication of any contamination in the oil.					NOTIMAL		
Fluid Condition The BN result indicates that there is suitable	CONTAMINATION	۷	method	limit/base	current	history1	history2
	Fuel		WC Method	>5	<1.0	0.2	
alkalinity remaining in the oil. The condition of the	Water		WC Method	>0.2	NEG	NEG	
oil is suitable for further service.	Glycol		WC Method		NEG	NEG	
	WEAR METALS		method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185m	>100	32	49	
	Chromium	ppm	ASTM D5185m		<1	<1	
	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m		3	10	
	Lead	ppm	ASTM D5185m		ر 1	5	
	Copper	ppm	ASTM D5185m		36	61	
	Tin	ppm	ASTM D5185m		<1	4	
	Vanadium	ppm	ASTM D5185m	210	0	0	
	Cadmium	ppm	ASTM D5185m		0	0	
	ADDITIVES	1-1-	method	limit/base		history1	history2
	Boron	ppm	ASTM D5185m		1	44	
	Barium		ASTM D5185m		، <1	12	
	Molybdenum	ppm	ASTM D5185m		55	41	
	Manganese	ppm ppm				41	
	Manyanese		ACTM DE185m	1	-1	5	
	Magnosium		ASTM D5185m		<1	5	
	Magnesium	ppm	ASTM D5185m	1010	902	531	
	Calcium	ppm ppm	ASTM D5185m ASTM D5185m	1010 1070	902 1253	531 1697	
	Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150	902 1253 1014	531 1697 951	
	Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270	902 1253 1014 1239	531 1697 951 1134	
	Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270 2060	902 1253 1014 1239 3345	531 1697 951 1134 3041	
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1010 1070 1150 1270 2060 limit/base	902 1253 1014 1239 3345 current	531 1697 951 1134 3041 history1	 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1010 1070 1150 1270 2060 limit/base	902 1253 1014 1239 3345 current 11	531 1697 951 1134 3041 history1 ▲ 50	 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 1270 2060 limit/base >25	902 1253 1014 1239 3345 <u>current</u> 11 3	531 1697 951 1134 3041 history1 ▲ 50 7	 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1010 1070 1150 22060 <i>limit/base</i> >25 >20	902 1253 1014 1239 3345 current 11 3 0	531 1697 951 1134 3041 history1 ▲ 50 7 2	 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	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	1010 1070 1150 1270 2060 limit/base >25 >20 limit/base	902 1253 1014 1239 3345 current 11 3 0 current	531 1697 951 1134 3041 ▲ 50 7 2 2 history1	 history2 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	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	1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3	902 1253 1014 1239 3345 <u>current</u> 11 3 0 <u>current</u> 0.6	531 1697 951 1134 3041 ▲ 50 7 2 2 history1 0.4	 history2 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	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 *ASTM D7844	1010 1070 1150 2260 imit/base >25 >20 imit/base >3 >20	902 1253 1014 1239 3345 current 11 3 0 current 0.6 7.2	531 1697 951 1134 3041 history1 ▲ 50 7 2 <u>history1</u> 0.4 7.6	 history2 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	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	1010 1070 1150 2260 imit/base >25 >20 imit/base >3 >20	902 1253 1014 1239 3345 <u>current</u> 11 3 0 <u>current</u> 0.6	531 1697 951 1134 3041 ▲ 50 7 2 2 history1 0.4	 history2 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm 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 *ASTM D7844	1010 1070 1150 2260 imit/base >25 >20 imit/base >3 >20	902 1253 1014 1239 3345 current 11 3 0 current 0.6 7.2	531 1697 951 1134 3041 history1 ▲ 50 7 2 <u>history1</u> 0.4 7.6	 history2 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm % Abs/cm Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	1010 1070 1150 2060 imit/base >25 >20 imit/base >3 >20 >30 imit/base	902 1253 1014 1239 3345 <u>current</u> 11 3 0 <u>current</u> 0.6 7.2 19.9	531 1697 951 1134 3041 ▲ 50 7 2 2 <u>history1</u> 0.4 7.6 23.1	 history2 history2 history2
	Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm % Abs/.1mm TION Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	1010 1070 1150 1270 2060 imit/base >25 20 imit/base >3 >20 30 imit/base >32	902 1253 1014 1239 3345 current 11 3 0 current 0.6 7.2 19.9 current	531 1697 951 1134 3041 ▲ 50 7 2 history1 0.4 7.6 23.1 history1	 history2 history2 history2



OIL ANALYSIS REPORT

FT-IR (Direct Trend)	VISUAL		method	limit/base	current	history1	history2
30 - Oxidation	White Metal	scalar	*Visual	NONE	NONE	NONE	
25 - Zuffation	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
U3 20	Precipitate	scalar	*Visual	NONE	NONE	NONE	
Ř	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
/24 +	Appearance	scalar	*Visual	NORML	NORML	NORML	
May24/24	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Base Number	Free Water	scalar	*Visual	2012	NEG	NEG	
	FLUID PROPER		method	limit/base	current	history1	history2
(D) 8.0 - H (D)	Visc @ 100°C	cSt	ASTM D445		13.6	11.1	
uand 4.0	GRAPHS						
2.0 -	Ferrous Alloys						
May24/24	40 - iron iron iron iron						
	_ 30 -			<u> </u>			
20	8 20						
18 Abnomal							
C 16 - Base	10-						
(2) 16 Base 75 14	0						
	May24/24			Jul10/24			
12	May			Jul			
10	Non-ferrous Meta	ls					
May24/24/24/24/24/24/24/24/24/24/24/24/24/2	70 copper						
W ai	60 - essesses lead						
	50-		_				
	40						
	ä 30						
	20 -						
	10-						
			Alternational Completions	Million and			
	ay24/24			Jul10/24			
	Mayi			Jul			
	Viscosity @ 100°	С			Base Numbe	er	
	19 18 Abnormal			10.0	Base		
	17						
	16 - Base			IB/HO			
	5 15						
	5 15			6.0 6.0 9.0 KOH/(d) 9.0 9.0 8 8 8 9.0 8 8 2.0			
	13 - Abnormal			N N N N N N N N N N N N N N N N N N N			
	12			⁶⁶ 2.0			
	10						
	1/24				1/24)/24 -
	May24,24			Jul10/24	May24/24		Jul10/24
Sample No. : Lab Number : Unique Number :	WearCheck USA - 50 WC0899095 06235468 11124302 CONST (Additional ⁻ contact Customer Serv	Recei Teste Diagr Tests: TBl vice at 1-8	ived : 15 id : 15 nosed : 15 N) 800-237-1369	5 Jul 2024 5 Jul 2024 5 Jul 2024 - W 9.	es Davis	NI Contact: mwyatt@traderco	DRAWER 1578 EW BERN, NC US 28563 MIKE WYATT
Statements of conformity to spe					rule (JCGM 1	06:2012) F:	(252)638-4871

Contact/Location: MIKE WYATT - TRANEW