

OIL ANALYSIS REPORT

SCHTRUCK 6351 [SCHTRUCK] Component

Front Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

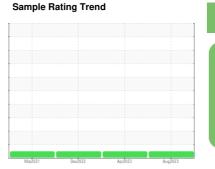
All component wear rates are normal.

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.



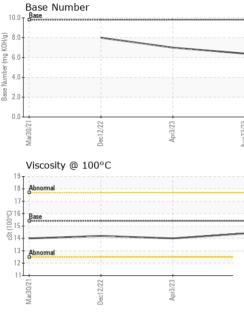


NORMAL

minikovi, unikovi, prježika Priječika										
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2				
Sample Number		Client Info		SBP0005074	SBP0004206	SBP0002512				
Sample Date		Client Info		22 Aug 2023	03 Apr 2023	12 Dec 2022				
Machine Age	mls	Client Info		554065	517443	475796				
Oil Age	mls	Client Info		36622	41647	40687				
Oil Changed		Client Info		Changed	Changed	Not Changd				
Sample Status				NORMAL	NORMAL	NORMAL				
CONTAMINATION	N	method	limit/base	current	history1	history2				
Fuel		WC Method	>5	<1.0	<1.0	<1.0				
Glycol		WC Method	20	NEG	NEG	NEG				
,				NEG		-				
WEAR METALS		method	limit/base	current	history1	history2				
Iron	ppm	ASTM D5185m	>80	17	20	18				
Chromium	ppm	ASTM D5185m	>5	2	2	1				
Nickel	ppm	ASTM D5185m	>2	<1	<1	0				
Titanium	ppm	ASTM D5185m		0	0	<1				
Silver	ppm	ASTM D5185m	>3	0	0	<1				
Aluminum	ppm	ASTM D5185m	>30	10	12	9				
Lead	ppm	ASTM D5185m	>30	0	0	0				
Copper	ppm	ASTM D5185m	>150	9	8	7				
Tin	ppm	ASTM D5185m	>5	<1	<1	<1				
Vanadium	ppm	ASTM D5185m		0	0	0				
Cadmium	ppm	ASTM D5185m		0	0	0				
					In the second	history2				
ADDITIVES		method				riistoryz				
Boron	ppm	ASTM D5185m	0	<1	nistory i 5	23				
	ppm ppm	ASTM D5185m								
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	<1	5 0	23				
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	<1 0 65	5 0 62	23 0 50				
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	<1 0 65 <1	5 0 62 <1	23 0 50 <1				
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	<1 0 65 <1 1028	5 0 62 <1 909	23 0 50 <1 508				
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	<1 0 65 <1 1028 1192	5 0 62 <1 909 1314	23 0 50 <1 508 1854				
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	0 0 60 0 1010 1070 1150	<1 0 65 <1 1028 1192 1062	5 0 62 <1 909 1314 993	23 0 50 <1 508 1854 751				
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	<1 0 65 <1 1028 1192	5 0 62 <1 909 1314	23 0 50 <1 508 1854				
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	0 0 60 0 1010 1070 1150 1270	<1 0 65 <1 1028 1192 1062 1360	5 0 62 <1 909 1314 993 1243	23 0 50 <1 508 1854 751 971				
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	0 0 60 1010 1070 1150 1270 2060	<1 0 65 <1 1028 1192 1062 1360 3210	5 0 62 <1 909 1314 993 1243 3123	23 0 50 <1 508 1854 751 971 2707				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	0 0 60 1010 1070 1150 1270 2060	<1 0 65 <1 1028 1192 1062 1360 3210 current	5 0 62 <1 909 1314 993 1243 3123 history1	23 0 50 <1 508 1854 751 971 2707 history2				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	0 0 60 1010 1070 1150 1270 2060	<1 0 65 <1 1028 1192 1062 1360 3210 current 5	5 0 62 <1 909 1314 993 1243 3123 history1 5	23 0 50 <1 508 1854 751 971 2707 history2 7				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	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 D5185m	0 0 60 1010 1070 1150 1270 2060 kimit/base >20	<1 0 65 <1 1028 1192 1062 1360 3210 current 5 1	5 0 62 <1 909 1314 993 1243 3123 history1 5 3	23 0 50 <1 508 1854 751 971 2707 kistory2 7 <1				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 kimit/base >20	<1 0 65 <1 1028 1192 1062 1360 3210 current 5 1 2	5 0 62 <1 909 1314 993 1243 3123 history1 5 3 2	23 0 50 <1 508 1854 751 971 2707 history2 7 <1 4				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 220 220 220	<1 0 65 <1 1028 1192 1062 1360 3210 current 5 1 2 current	5 0 62 <1 909 1314 993 1243 3123 history1 5 3 2 2 history1	23 0 50 <1 508 1854 751 971 2707 history2 7 <1 4 history2				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <i>limit/base</i> >20 20 <i>limit/base</i>	<1 0 65 <1 1028 1192 1062 1360 3210 <i>current</i> 5 1 2 2 <i>current</i> 0.6	5 0 62 <1 909 1314 993 1243 3123 history1 5 3 2 2 history1 0.6	23 0 50 <1 508 1854 751 971 2707 history2 7 <1 4 history2 0.7				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 2060 200 200 200 200 200 200	<1 0 65 <1 1028 1192 1062 1360 3210 current 5 1 2 2 current 0.6 9.5	5 0 62 <1 909 1314 993 1243 3123 history1 5 3 2 2 history1 0.6 9.7	23 0 50 <1 508 1854 751 971 2707 history2 7 <1 4 history2 0.7 12.1				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 >20 >20 >20 limit/base >3 >20 >3 >20	<1 0 65 <1 1028 1192 1062 1360 3210 current 5 1 2 current 0.6 9.5 20.3	5 0 62 <1 909 1314 993 1243 3123 history1 5 3 2 history1 0.6 9.7 22.4	23 0 50 <1 508 1854 751 971 2707 history2 7 <1 4 history2 0.7 12.1 25.7				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 2060 200 200 200 200 200 200	<1 0 65 <1 1028 1192 1062 1360 3210 current 5 1 2 2 current 0.6 9.5	5 0 62 <1 909 1314 993 1243 3123 history1 5 3 2 2 history1 0.6 9.7	23 0 50 <1 508 1854 751 971 2707 history2 7 <1 4 history2 0.7 12.1				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7414	0 0 0 1010 1070 1150 1270 2060 2060 >20 >20 >20 limit/base >3 >20 >3 >20	<1 0 65 <1 1028 1192 1062 1360 3210 current 5 1 2 0.6 9.5 20.3 current 17.4	5 0 62 <1 909 1314 993 1243 3123 history1 5 3 2 history1 0.6 9.7 22.4 history1 20.5	23 0 50 <1 508 1854 751 971 2707 history2 7 <1 4 history2 0.7 12.1 25.7 history2 28.5				
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 imit/base >20 imit/base >3 >20 imit/base	<1 0 65 <1 1028 1192 1062 1360 3210 current 5 1 2 current 0.6 9.5 20.3	5 0 62 <1 909 1314 993 1243 3123 history1 5 3 2 history1 0.6 9.7 22.4 history1	23 0 50 <1 508 1854 751 971 2707 history2 7 <1 4 history2 0.7 12.1 25.7 history2				



OIL ANALYSIS REPORT



		VISUAL		methou	iiiiii/base	current	Thistory I	nistoryz
		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
		Silt	scalar	*Visual	NONE	NONE	NONE	NONE
		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Apr.2.02	2/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
~	нрпэ/23 Aug22/23	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
		Free Water	scalar	*Visual		NEG	NEG	NEG
		FLUID PROPER	RTIES	method	limit/base	current	history1	history2
******		Visc @ 100°C	cSt	ASTM D445	15.4	14.4	14.0	14.2
		GRAPHS						
		Ferrous Alloys						
23	27	iron						
An2/22	/cide	15 - nickel						
		-						
		<u>ل</u> و 10-						
		5-						
		0	1000m/000000000000000000000000000000000					
		80/21-		Apr3/23 -	2/23 -			
		Mar30/2' Dec12/22		Apr	Aug22/23			
		Non-ferrous Met	als					
		12 copper 1						
		10 - management lead						
		8-						
		ud 6-						
		4						
		2						
				The second s				
		0/21		Apr3/23	2/23			
		Mar30/21		Apri	Aug22/23			
		Viscosity @ 100°	°C			Base Number		
		19 18 Abnormal						
		18 Abnormal						
		⊡ ¹⁶ Pres			KOH			
		Dase			ළ 6.0- ස			
		ê15-			- ă			
		3-16 Base 15 to 15			<u>5</u> 4.0-			
		10			MM 4.0			
					(B) 0.0 - (B) 0.			
		13 Abnormal 12		~	0.0			
		13 Abnormal 12		13/23	0.0	30/21 12/22	13/23	
		13 - Abnormal 12 -		Apr3/23	0.0	Mar30/21	Apr3/23	
		Abnormal 12 11 12 11 12 11 12 12 11 12 12			0.0		2	
	Laboratory Sample No.	: WearCheck USA		son Ave., Ca	ry, NC 27513		T TRANSPORT	ATION - 6054
	Sample No.	: WearCheck USA	Received	son Ave., Ca 1 : 25 /	ry, NC 27513 Aug 2023		TTRANSPORT	ATION - 6054 08 E Bay Roa
	Sample No. Lab Number	: WearCheck USA - : SBP0005074 : 05935225	Received Diagnos	son Ave., Ca 1 : 25 / ed : 28 /	ry, NC 27513		TTRANSPORT	ATION - 6054 08 E Bay Roa lattsmouth, N
NE LABORATORY Tificate L2367	Sample No.	: WearCheck USA - : SBP0005074 : 05935225 r : 10620496	Received	son Ave., Ca 1 : 25 / ed : 28 /	ry, NC 27513 Aug 2023 Aug 2023		T TRANSPORT 10 P	ATION - 60544 D8 E Bay Roa lattsmouth, N US 6804 ct: NICK DOT

Submitted By: CASEY WILKIE

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