

Machine Id  
**WESTERN STAR 4900SB 20**  
Component  
**Diesel Engine**  
Fluid  
**TOTAL RUBIA WORKS 0W40 (--- GAL)**

### RECOMMENDATION

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0079751</b>	PC0020565	PC0040906
Sample Date		Client Info		<b>16 Apr 2024</b>	16 Apr 2024	15 Jan 2024
Machine Age	hrs	Client Info		<b>0</b>	11317	10905
Oil Age	hrs	Client Info		<b>0</b>	411	489
Filter Age	hrs	Client Info		<b>0</b>	411	489
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

Les taux d'usure de tous les composants sont normaux.

Iron	ppm	ASTM D5185(m)	>100	<b>2</b>	45	57
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	2	2
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	3	6
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	1	10
Copper	ppm	ASTM D5185(m)	>330	<b>0</b>	<1	1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

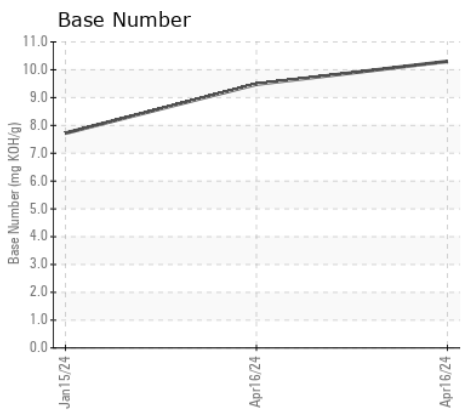
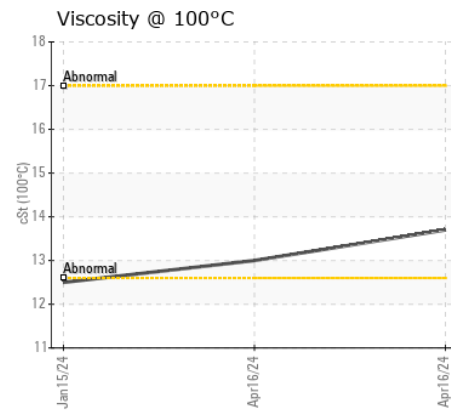
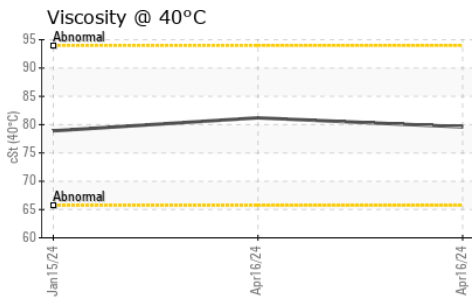
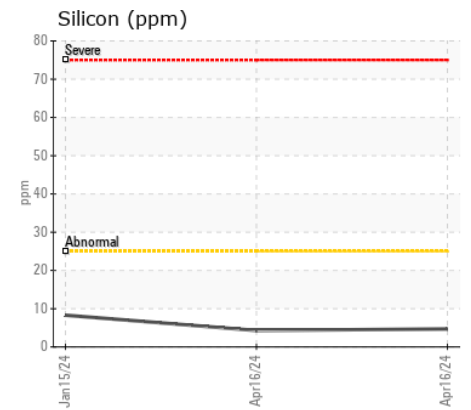
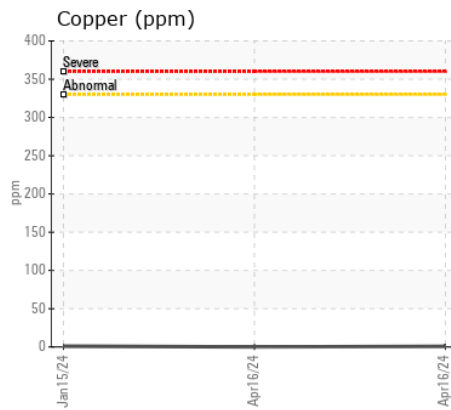
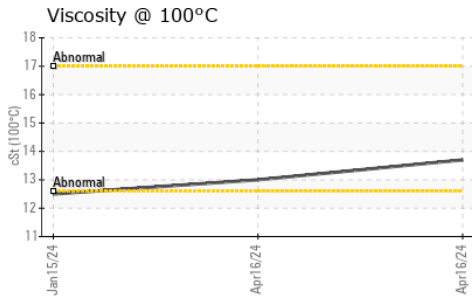
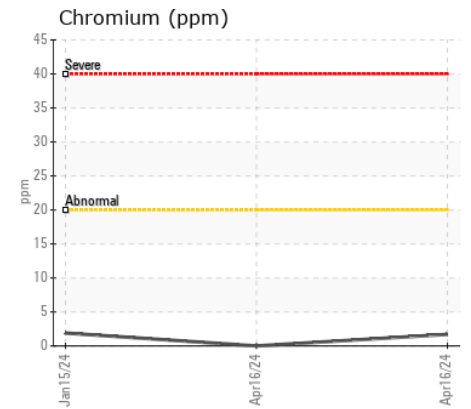
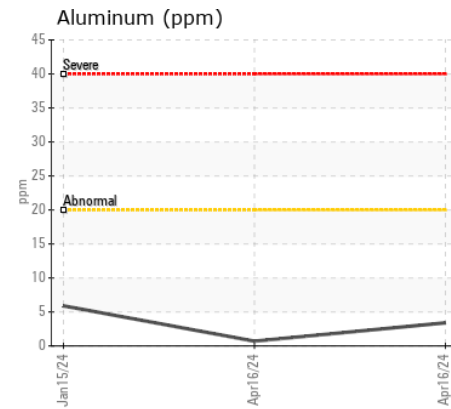
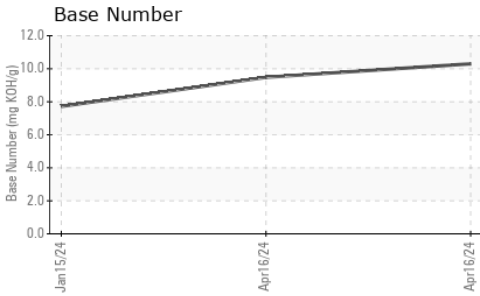
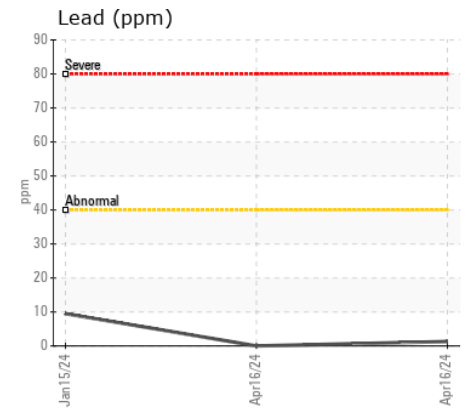
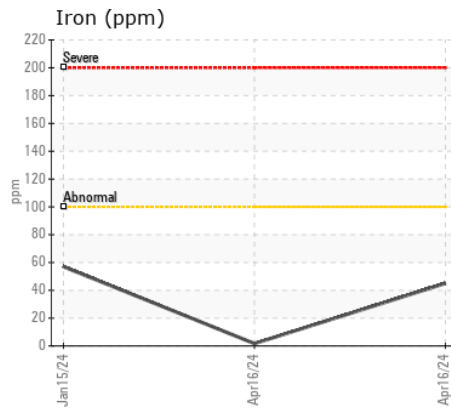
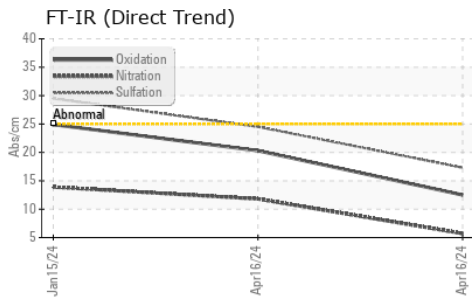
Il n'y a aucun indice de contamination dans l'huile.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	5	8
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	3	6
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0.9	1.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>5.7</b>	11.8	13.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>17.3</b>	24.5	29.5
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

Le résultat pour le BN indique que la réserve d'alcalinité est acceptable pour l'huile. L'état de l'huile permet d'en prolonger l'utilisation.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	10	6
Boron	ppm	ASTM D5185(m)		<b>130</b>	23	14
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	58	61
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185(m)		<b>663</b>	1043	1105
Calcium	ppm	ASTM D5185(m)		<b>1171</b>	965	943
Phosphorus	ppm	ASTM D5185(m)		<b>900</b>	989	1048
Zinc	ppm	ASTM D5185(m)		<b>1024</b>	1193	1246
Sulfur	ppm	ASTM D5185(m)		<b>2904</b>	2596	2781
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>12.5</b>	20.3	24.9
Base Number (BN)	mg KOH/g	ASTM D2896*		<b>10.30</b>	9.48	7.72
Visc @ 40°C	cSt	ASTM D7279(m)		<b>79.6</b>	81.2	78.9
Visc @ 100°C	cSt	ASTM D7279(m)		<b>13.7</b>	13.0	12.5
Viscosity Index (VI)	Scale	ASTM D2270*		<b>177</b>	160	156



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0079751 **Received** : 18 Apr 2024  
**Lab Number** : 02629893 **Tested** : 19 Apr 2024  
**Unique Number** : 5763025 **Diagnosed** : 19 Apr 2024 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV40, VI )

**CONSTRUCTION ET PAVAGE PORTNEUF INC**  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.