



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
INTERNATIONAL 7600SBAGX4 T-98 (S/N 1HTWYAHT3BJ391667)

Component
Diesel Engine

Fluid
CONOCO PHILLIPS GUARDOL ECT 15W40 (10 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0899842	WC0714279	WC0692150
Sample Date		Client Info		15 Mar 2024	12 Jul 2022	25 May 2022
Machine Age	mls	Client Info		463990	478551	441051
Oil Age	mls	Client Info		10454	13500	13354
Filter Age	mls	Client Info		10454	13500	13354
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

Piston and cylinder wear is indicated.

Iron	ppm	ASTM D5185m	>90	▲ 94	41	53
Chromium	ppm	ASTM D5185m	>4	2	<1	3
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	89	4	8
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>15	▲ 32	4	● 13
Lead	ppm	ASTM D5185m	>50	4	22	1
Copper	ppm	ASTM D5185m	>55	7	35	3
Tin	ppm	ASTM D5185m	>4	1	2	<1
Vanadium	ppm	ASTM D5185m		1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

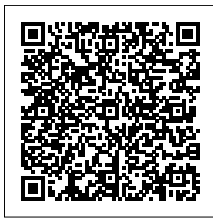
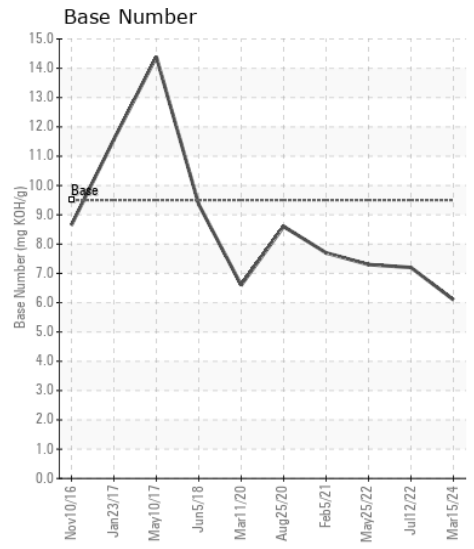
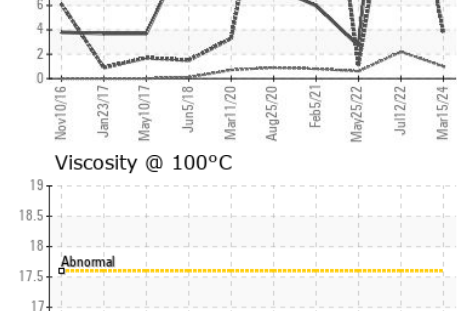
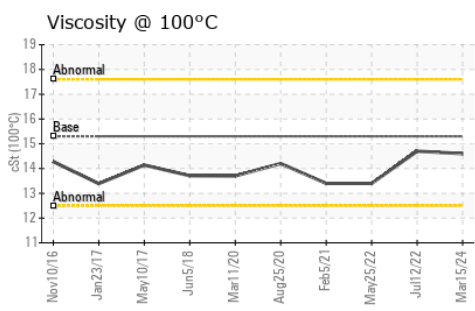
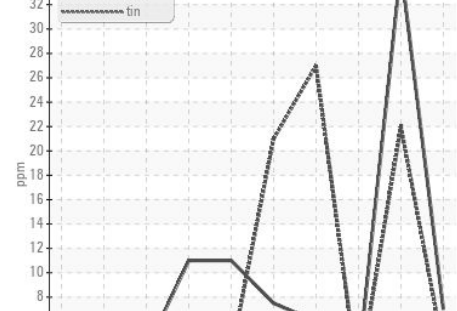
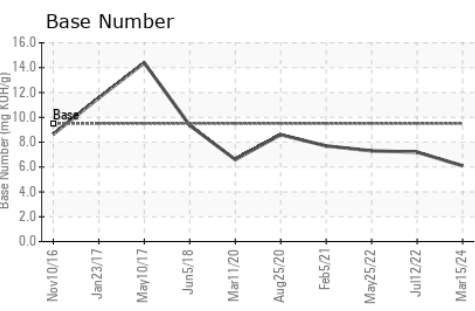
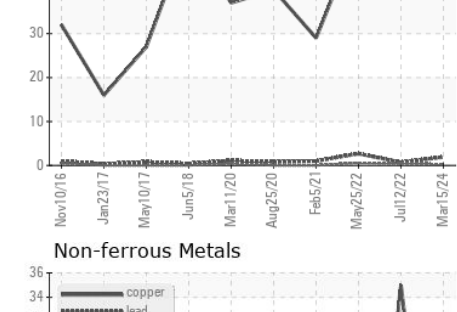
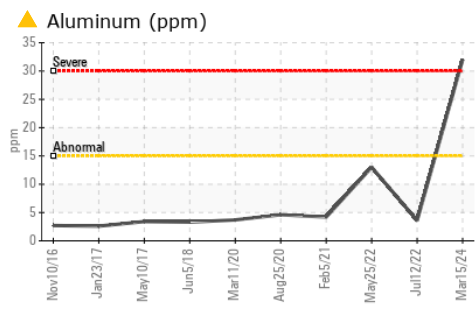
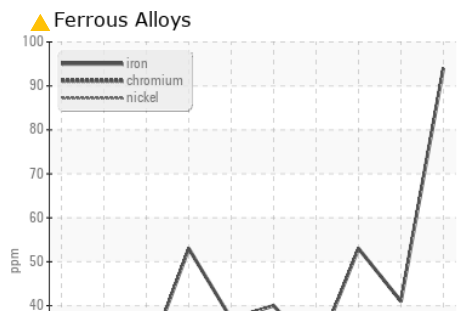
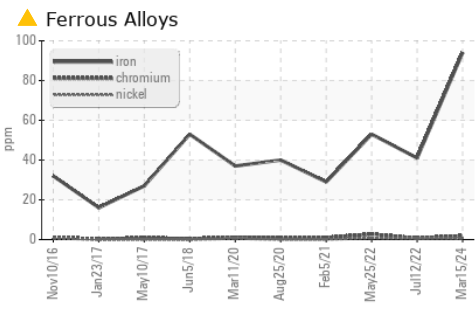
Sodium and/or potassium levels are high. Test for glycol is negative.

Silicon	ppm	ASTM D5185m	>15	15	6	▲ 27
Potassium	ppm	ASTM D5185m	>20	▲ 75	0	28
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	1.4	4.1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	12.2	13.0	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.4	31.8	21.0
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		4	2	3
Boron	ppm	ASTM D5185m	85	44	230	120
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		8	106	31
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	350	384	606	215
Calcium	ppm	ASTM D5185m	1800	1876	1532	1893
Phosphorus	ppm	ASTM D5185m	1000	1014	650	926
Zinc	ppm	ASTM D5185m	1100	1182	835	1110
Sulfur	ppm	ASTM D5185m	3500	3899	2763	3375
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.4	20.2	17.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.5	6.1	7.2	7.3
Visc @ 100°C	cSt	ASTM D445	15.3	14.6	14.7	13.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0899842 **Received** : 21 Mar 2024
Lab Number : 06124566 **Tested** : 26 Mar 2024
Unique Number : 10938717 **Diagnosed** : 26 Mar 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: GLYCOL, TBN)
 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - 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)

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