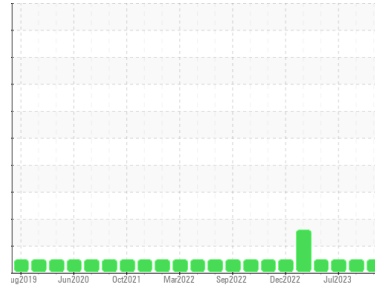


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
INTERNATIONAL 38

Component
Diesel Engine

Fluid
CONOCO PHILLIPS GUARDOL ECT 15W40 (--- Oz)

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0083464	PCA0083483	PCA0083456
Sample Date	Client Info		15 Jan 2024	13 Sep 2023	01 Jul 2023
Machine Age	mls	Client Info	639085	626602	620813
Oil Age	mls	Client Info	10000	10000	620813
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	8	8	10
Chromium	ppm	ASTM D5185m >20	1	<1	<1
Nickel	ppm	ASTM D5185m >4	<1	0	<1
Titanium	ppm	ASTM D5185m	9	<1	0
Silver	ppm	ASTM D5185m >3	<1	0	0
Aluminum	ppm	ASTM D5185m >20	1	1	2
Lead	ppm	ASTM D5185m >40	2	2	1
Copper	ppm	ASTM D5185m >330	3	3	3
Tin	ppm	ASTM D5185m >15	1	<1	1
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 85	20	6	2
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	52	59	58
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 350	885	1083	1013
Calcium	ppm	ASTM D5185m 1800	1071	1189	1090
Phosphorus	ppm	ASTM D5185m 1000	950	1073	1085
Zinc	ppm	ASTM D5185m 1100	1158	1354	1364
Sulfur	ppm	ASTM D5185m 3500	3535	3935	3947

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	7	12
Sodium	ppm	ASTM D5185m	0	2	1
Potassium	ppm	ASTM D5185m >20	2	3	2

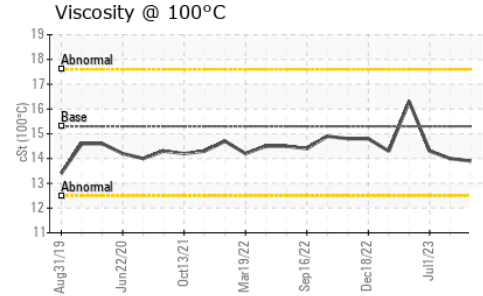
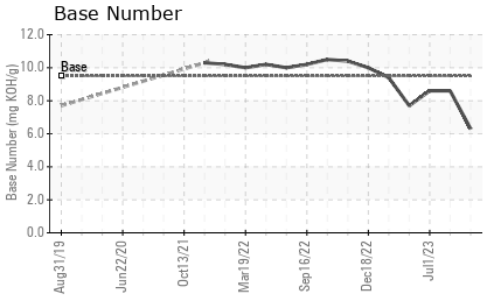
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.1	0.2
Nitration	Abs/cm	*ASTM D7624 >20	6.8	6.2	6.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	16.6	18.5	19.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	12.8	14.5	16.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.5	6.3	8.6	8.6

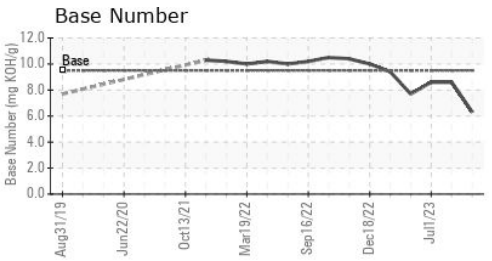
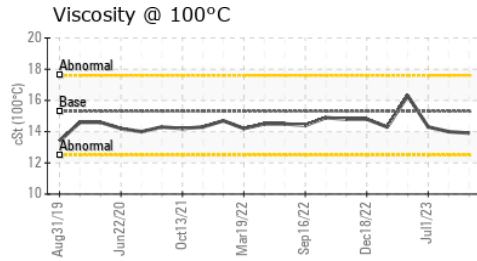
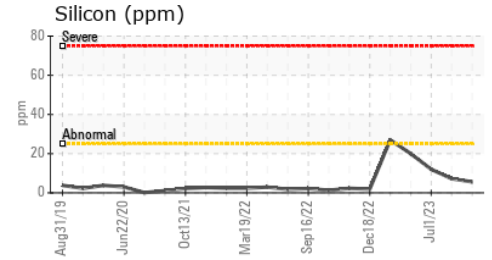
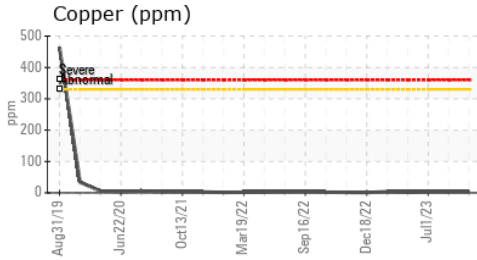
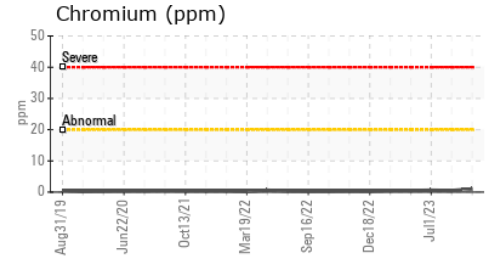
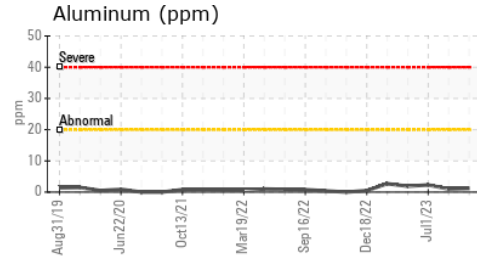
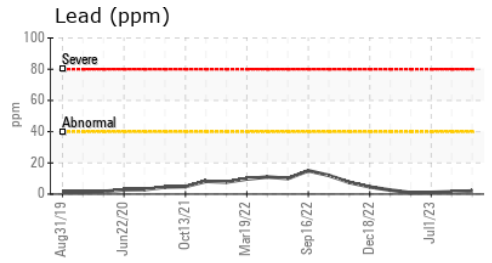
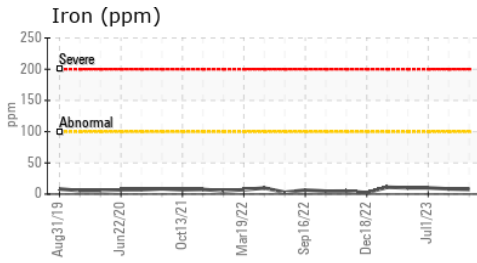
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.3	13.9	14.0	14.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0083464 **Received** : 16 Feb 2024
Lab Number : 06092140 **Tested** : 19 Feb 2024
Unique Number : 10884993 **Diagnosed** : 20 Feb 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

ALBERT HOGOBOOM OILFIELD TRUCKING INC
 767 OIL HILL ROAD
 EL DORADO, KS
 US 67042
 Contact: LOREN JACK
 loren@hogoboom.net
 T:

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)

F: (316)321-1396