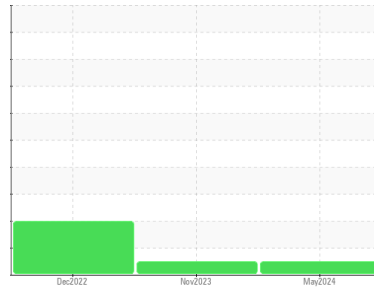




Machine Id
93074
 Component
Diesel Engine
 Fluid
AG 10W30 (10 GAL)

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



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			SBP0007024	SBP0005985	SBP0001731
Sample Date	Client Info			22 May 2024	20 Nov 2023	16 Dec 2022
Machine Age	mls	Client Info		168434	153081	116400
Oil Age	mls	Client Info		168434	0	0
Oil Changed	Client Info			Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<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	>80	20	22	▲ 105
Chromium	ppm	ASTM D5185m	>5	1	<1	4
Nickel	ppm	ASTM D5185m	>2	0	<1	1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	5	6	7
Lead	ppm	ASTM D5185m	>30	2	2	8
Copper	ppm	ASTM D5185m	>150	3	3	12
Tin	ppm	ASTM D5185m	>5	<1	<1	2
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<1	0	6
Barium	ppm	ASTM D5185m		0	2	0
Molybdenum	ppm	ASTM D5185m		61	59	60
Manganese	ppm	ASTM D5185m		<1	0	2
Magnesium	ppm	ASTM D5185m		994	885	938
Calcium	ppm	ASTM D5185m		1189	1068	1275
Phosphorus	ppm	ASTM D5185m		1074	851	1061
Zinc	ppm	ASTM D5185m		1306	1159	1310
Sulfur	ppm	ASTM D5185m		3713	4194	3069

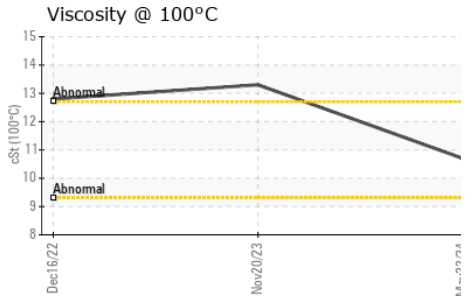
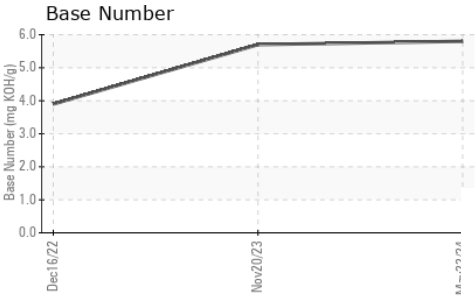
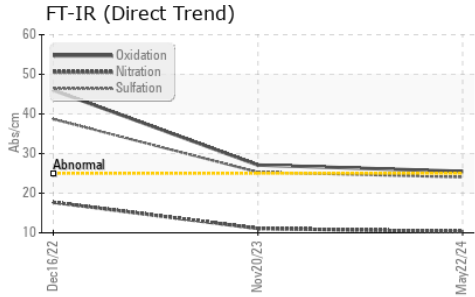
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	9	7	12
Sodium	ppm	ASTM D5185m		2	0	5
Potassium	ppm	ASTM D5185m	>20	4	5	6

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.5	0.5	1.3
Nitration	Abs/cm	*ASTM D7624	>20	10.3	11.1	17.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	25.3	38.7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.5	27.1	46.0
Base Number (BN)	mg KOH/g	ASTM D2896		5.8	5.7	▲ 3.9



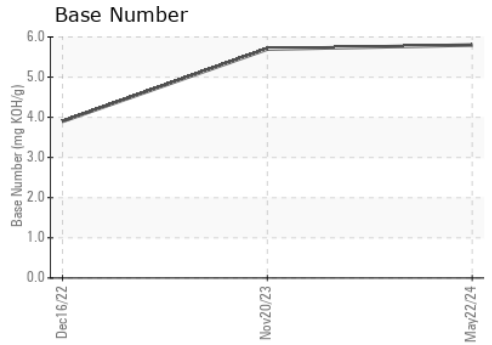
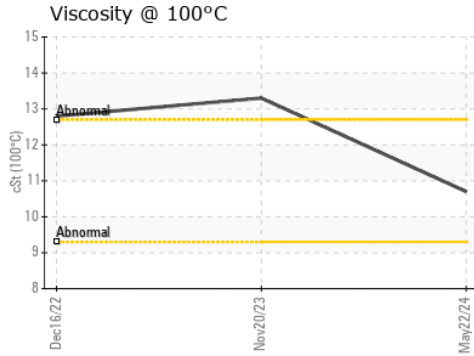
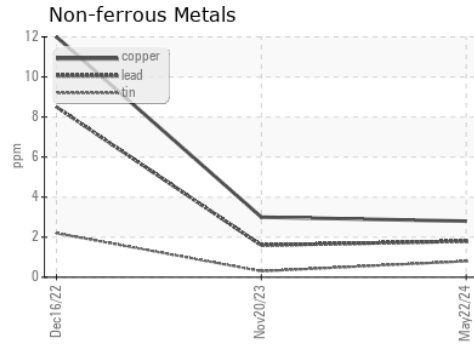
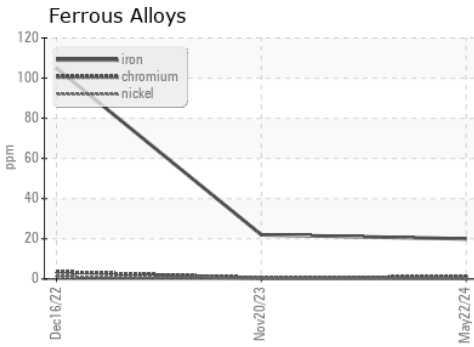
OIL ANALYSIS REPORT



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	10.7	13.3	12.8

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0007024 **Received** : 30 May 2024
Lab Number : 06195048 **Tested** : 31 May 2024
Unique Number : 11057171 **Diagnosed** : 31 May 2024 - Sean Felton
Test Package : FLEET

Sapp Bros. Fleet - Omaha Petroleum Location
 9915 South 148th
 OMAHA, NE
 US 68138
 Contact: Stephanie Kelly
 skelly@sappbros.net
 T: (800)211-8589
 F:

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)