

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Gen Tech USA Gen 2

Diesel Engine Fluid SHELL 15W40 (7 GAL)

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 INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0802633	WC0700371	
Sample Date		Client Info		14 Jul 2023	24 May 2022	
Machine Age	hrs	Client Info		207	177	
Oil Age	hrs	Client Info		207	177	
Oil Changed		Client Info		Not Changd	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	1	2	
Chromium	ppm	ASTM D5185m	>20	0	<1	
Nickel	ppm	ASTM D5185m	>4	0	0	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	2	<1	
Lead	ppm	ASTM D5185m	>40	0	<1	
Copper	ppm	ASTM D5185m	>330	1	<1	
Tin	ppm	ASTM D5185m	>15	0	0	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/baco		biotorud	history?
ABBIHIVE0		method	IIIIII/Dase	current	nistory i	TIIStoryz
Boron	ppm	ASTM D5185m	IIIII/Dase	175	112	
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m	iiiii/base	175 0	112 1	
Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		175 0 73	112 1 19	
Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	inniv base	175 0 73 <1	112 1 19 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		175 0 73 <1 325	112 1 19 <1 560	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		175 0 73 <1 325 1855	112 1 19 <1 560 1443	
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 ASTM D5185m		175 0 73 <1 325 1855 981	112 1 19 <1 560 1443 1019	
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 ASTM D5185m		175 0 73 <1 325 1855 981 1213	112 1 19 <1 560 1443 1019 1215	
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		175 0 73 <1 325 1855 981 1213 4296	112 1 19 <1 560 1443 1019 1215 3804	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	limit/base	175 0 73 <1 325 1855 981 1213 4296 current	112 1 19 <1 560 1443 1019 1215 3804 history1	 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 ASTM D5185m	limit/base	175 0 73 <1 325 1855 981 1213 4296 current 5	112 1 19 <1 560 1443 1019 1215 3804 history1 4	History2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >150	current 175 0 73 <1 325 1855 981 1213 4296 current 5 <1	112 1 19 <1 560 1443 1019 1215 3804 history1 4 2	History2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >150 >20	175 0 73 <1 325 1855 981 1213 4296 current 5 <1 2	112 1 19 <1 560 1443 1019 1215 3804 history1 4 2 3	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >150 >20 limit/base	current 175 0 73 <1 325 1855 981 1213 4296 current 5 <1 2 current	112 1 19 <1 560 1443 1019 1215 3804 history1 4 2 3 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	limit/base >25 >150 >20 limit/base >3	current 175 0 73 <1 325 1855 981 1213 4296 current 5 <1 2 current 0	112 1 19 <1 560 1443 1019 1215 3804 history1 4 2 3 history1 0.1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >150 >20 limit/base >3 >20	current 175 0 73 <1 325 1855 981 1213 4296 current 5 <1 2 current 0 5.6	112 1 19 <1 560 1443 1019 1215 3804 history1 4 2 3 history1 0.1 6.5	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624	limit/base >25 >150 >20 limit/base >3 >20 >30	current 175 0 73 <1 325 1855 981 1213 4296 current 5 <1 2 current 0 5.6 17.4	112 1 19 <1 560 1443 1019 1215 3804 history1 4 2 3 history1 0.1 6.5 18.7	history2 history2 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7624 *ASTM D7415	limit/base >25 >150 >20 limit/base >3 >20 >30 limit/base	current 175 0 73 <1 325 1855 981 1213 4296 current 5 <1 2 current 0 5.6 17.4	112 1 19 <1 560 1443 1019 1215 3804 history1 4 2 3 history1 0.1 6.5 18.7 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7814 *ASTM D7624 *ASTM D7415 method	limit/base >25 >150 >20 limit/base >3 >20 >30 limit/base >25	current 175 0 73 <1 325 1855 981 1213 4296 current 5 <1 2 current 0 5.6 17.4 current 12.6	112 1 19 <1 560 1443 1019 1215 3804 history1 4 2 3 history1 0.1 6.5 18.7 history1 13.0	history2



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