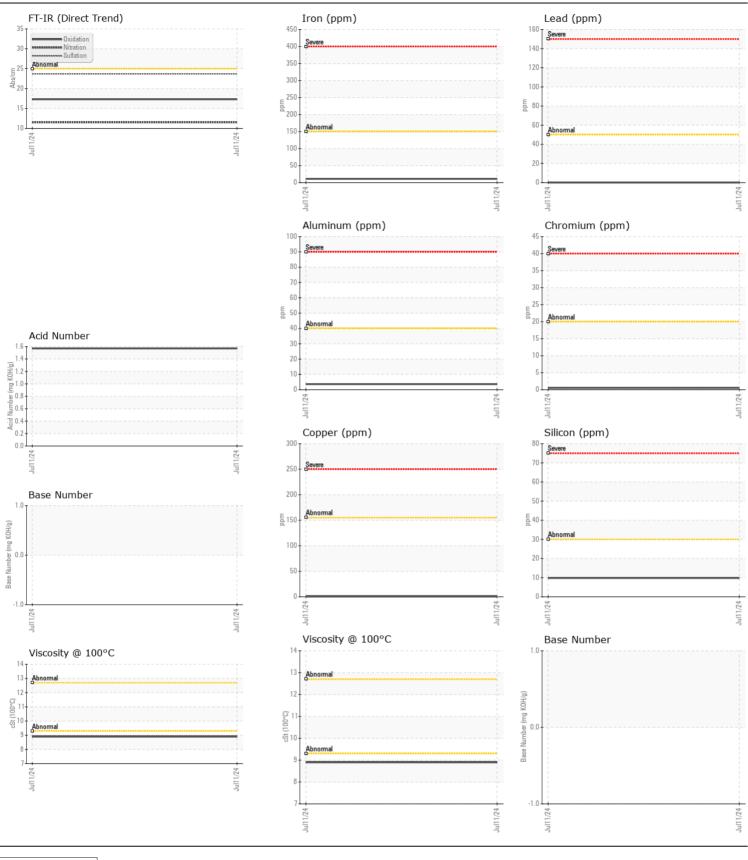


Machine Id CHEVROLET CRUZE 4704-05 E7317338 Component Gasoline Engine

{not provided} (--- GAL)

	Toot		Mothod	Limit/Abr	Current	History	History
RECOMMENDATION	Test Sample Number	UOM	Method Client Info	Limit/Abn	Current WC0795803	History1	History2
No corrective action is recommended at this time.	Sample Number		Client Info		11 Jul 2024		
	Machine Age	mls	Client Info		0		
	Oil Age	mls	Client Info		0		
	Filter Age	mls	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron		ASTM D5185m	. 150			
WEAN	Iron Chromium	ppm ppm	ASTM D5185m		11 <1		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m	20	<1		
	Silver	ppm	ASTM D5185m	~2	0		
	Aluminum	ppm	ASTM D5185m		4		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		<1		
	Tin	ppm	ASTM D5185m		0		
	Vanadium	ppm	ASTM D5185m	10	0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
					40		
CONTAMINATION	Silicon	ppm	ASTM D5185m		10		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		6		
	Fuel	%	ASTM D3524		<1.0		
	Water		WC Method WC Method	>0.2	NEG		
	Glycol	0/		_	NEG		
	Soot % Nitration	% Abs/cm	*ASTM D7844 *ASTM D7624	. 20	0.1 11.5		
	Sulfation	Abs/.1mm	*ASTM D7624	>20	23.7		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water		*Visual	>0.2	NEG		
LUID CONDITION	Sodium	ppm	ASTM D5185m	>400	6		
The AN level is acceptable for this fluid.	Boron	ppm	ASTM D5185m		40		
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		93		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		556 1042		
	Calcium Phosphorus	ppm	ASTM D5185m ASTM D5185m		1042 648		
	Zinc	ppm	ASTM D5185m		648 793		
	Sulfur	ppm ppm	ASTM D5185m		2308		
			*ASTM D5185111 *ASTM D7414	>25	17.3		
	()yidation						
	Oxidation Acid Number (AN)	Abs/.1mm mg KOH/g		20	1.57		



Contact/Location: CHRIS ARNOLD - DAVDAVMD Page 2 of 2