

UIN 0605

Gasoline Engine

Unit No.

Unit:

Make Land Rover

Model

Serial No. Model: LR4

Site

Compartment:

Name Gasoline Engine

Make

Model


Serial No.

Capacity:

DIAGNOSIS


All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: Pat.Libutti




Normal


LEGEND




Severe









Abnormal



Caution



Normal

DATE SAMPLED	17-May-24	20-Jul-23	01-Apr-22	12-Aug-20	30-May-19	12-Aug-17
DATE RECEIVED	24-May-24	10-Aug-23	25-Apr-22	26-Aug-20	27-Jun-19	06-Sep-17
DATE REPORTED	27-May-24	11-Aug-23	27-Apr-22	27-Aug-20	01-Jul-19	07-Sep-17
LAB NO.	43021923642	43021808899	43021653190	43021429797	43021288290	43021040763
SIF NO.	33113162	33113160	33113158	33113154	32370385	14796382
TIME ON UNIT	mi	153000	142000	125000	121000	114000
TIME ON OIL	mi	11000	11000	6000	4000	7000
OIL BRAND	Red Line	Red Line	Red Line	Red Line	Castrol	Castrol
OIL TYPE	Motor Oil	Motor Oil	Motor Oil	Motor Oil	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED						
FILTER				4000	7000	
OIL CHANGED	Changed	Changed	Changed	Changed	Changed	Changed
WO NUMBER						
Metals (ppm)						
Iron (Fe)	21	21	13	8	19	55
Chromium (Cr)	<1	<1	<1	<1	<1	1
Lead (Pb)	<1	<1	<1	<1	<1	<1
Copper (Cu)	2	4	2	1	1	1
Tin (Sn)	3	<1	<1	<1	<1	<1
Aluminium (Al)	4	5	3	2	4	7
Nickel (Ni)	<1	<1	<1	<1	<1	<1
Silver (Ag)	<1	<1	<1	<1	<1	<1
Titanium (Ti)	<1	<1	<1	<1	<1	1
Vanadium (V)	<1	<1	<1	<1	<1	<1
Contaminants (ppm)						
Silicon (Si)	4	7	6	6	4	7
Sodium (Na)	16	23	19	14	14	33
Potassium (K)	<1	<1	<1	4	1	<1
Additives (ppm)						
Magnesium (Mg)	121	673	532	17	28	23
Calcium (Ca)	3652	3017	2906	3344	3432	3234
Barium (Ba)	<1	<1	<1	<1	<1	<1
Phosphorus (P)	1187	1152	1102	1016	750	801
Zinc (Zn)	1488	1318	1251	1133	865	929
Molybdenum (Mo)	553	535	522	548	119	102
Boron (B)	14	27	78	51	22	24
Contaminants						
Water (%)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Coolant	No	No	No	No	No	No
Physical Tests						
Viscosity (cSt 100C)	10.4	10.0	9.3	9.0	9.2	9.9
Physical / Chemical						
Base Number (mgKOH/g)	2.7	1.5	3.0	3.3	2.2	2.4
						

UIN 0605B66

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Southeast Asia

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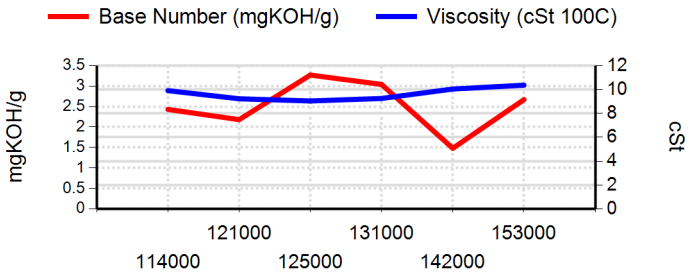
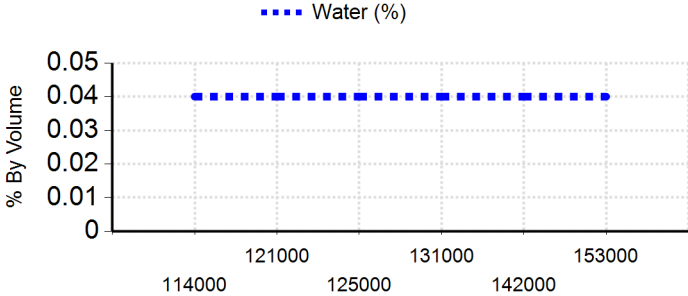
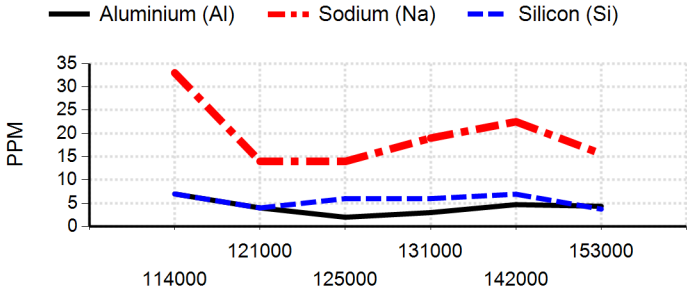
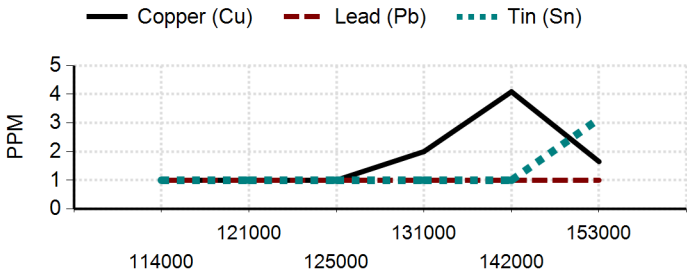
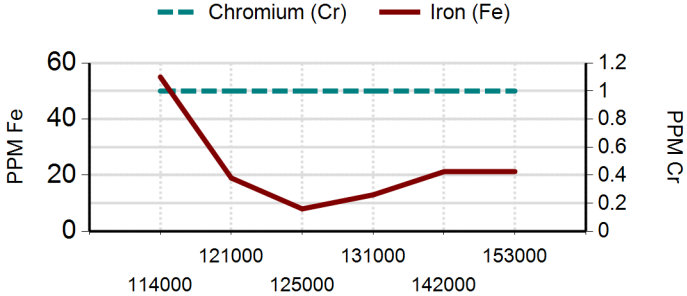
Europe

Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896B, back (*M)
Fuel Dilution by GC:	ASTM D7593
Fuel Dilution Visc/Setaflash	In House
Fuel Soot ATR/IR:	ASTM D7686 (*M)
Soot by FTIR:	ASTM D7844
Glycol:	In House
Metals by ICP AES:	ASTM D5185 (*M)
Ox, NOx, SOx, FTIR:	ASTM E2412/D7418/D7414 D7415
PQ Index:	ASTM D8120 (*M)
Particle Count:	ASTM D7647 (*M) / ISO 4406
Kinematic Viscosity:	ASTM D445 (*M) / D7279 (*M)
Water KF:	D6304 / E203 (*M)
Water Crackle:	In House

*M - Modified Method



Filter
Image

Filter patch test is not
performed Contact laboratory
for more information

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