

**UIN 0605B66**

## Gasoline Engine

### Unit No.

#### Unit:

**Make** Land Rover  
**Model** SALAM2D42AAxxxxxx  
**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:** roldan.beldad




**Normal**


LEGEND




Severe






Abnormal



Caution



Normal

<b>DATE SAMPLED</b>	12-Aug-20	30-May-19	12-Aug-17
<b>DATE RECEIVED</b>	26-Aug-20	27-Jun-19	06-Sep-17
<b>DATE REPORTED</b>	27-Aug-20	01-Jul-19	07-Sep-17
LAB NO.	43021429797	43021288290	43021040763
SIF NO.	33113154	32370385	14796382
TIME ON UNIT	mi	125000	114000
TIME ON OIL	mi	4000	10000
OIL BRAND	Redline	Castrol	Castrol
OIL TYPE	Motor Oil	Unidentified	Unidentified
OIL GRADE	SAE 5W20	SAE 5W20	SAE 5W20
OIL ADDED			
FILTER	4000	7000	10000
OIL CHANGED	Changed	Changed	Changed
WO NUMBER			
<b>Metals (ppm)</b>			
Iron (Fe)	8	19	55
Chromium (Cr)	<1	<1	1
Lead (Pb)	<1	<1	<1
Copper (Cu)	1	1	1
Tin (Sn)	<1	<1	<1
Aluminium (Al)	2	4	7
Nickel (Ni)	<1	<1	<1
Silver (Ag)	<1	<1	<1
Titanium (Ti)	<1	<1	1
Vanadium (V)	<1	<1	<1
<b>Contaminants (ppm)</b>			
Silicon (Si)	6	4	7
Sodium (Na)	14	14	33
Potassium (K)	4	1	<1
<b>Additives (ppm)</b>			
Magnesium (Mg)	17	28	23
Calcium (Ca)	3344	3432	3234
Barium (Ba)	<1	<1	<1
Phosphorus (P)	1016	750	801
Zinc (Zn)	1133	865	929
Molybdenum (Mo)	548	119	102
Boron (B)	51	22	24
<b>Contaminants</b>			
Water (%)	<0.05	<0.05	<0.05
Coolant	No	No	No
<b>Physical Tests</b>			
Viscosity (cSt 100C)	9.0	9.2	9.9
<b>Physical / Chemical</b>			
Base Number (mgKOH/g)	3.3	2.2	2.4
			

UIN 0605B66

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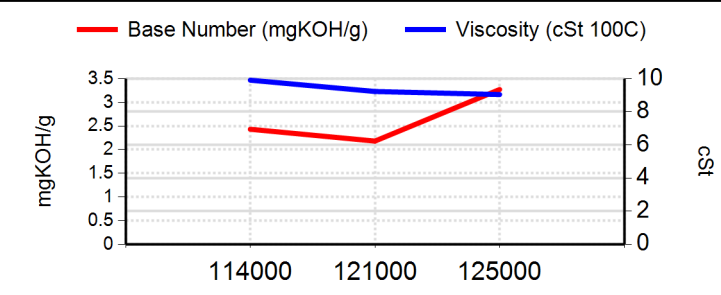
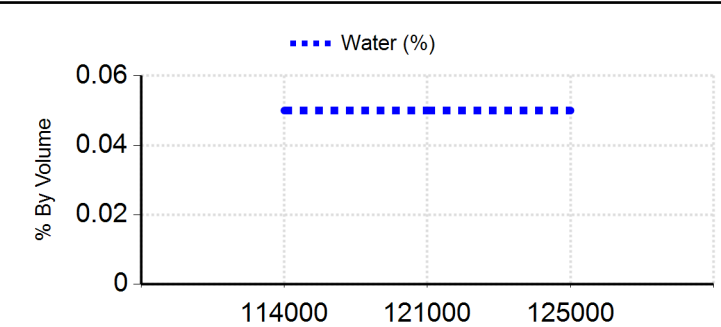
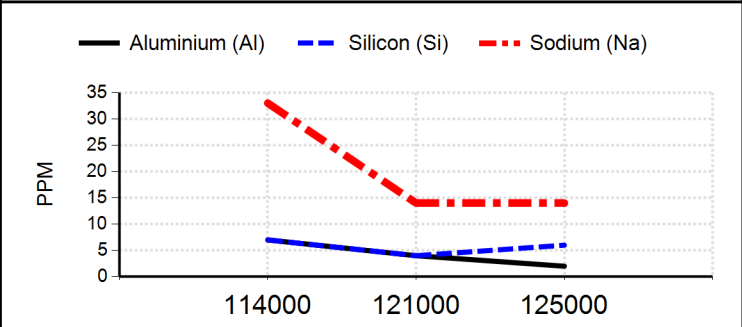
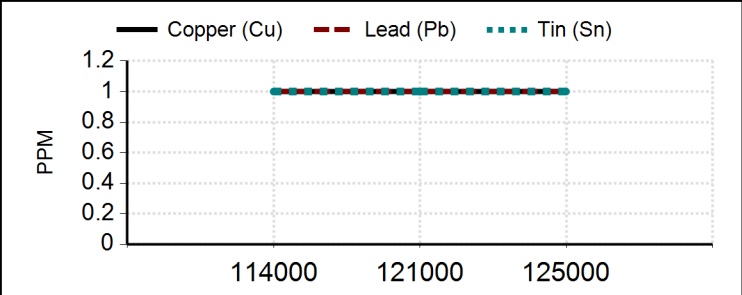
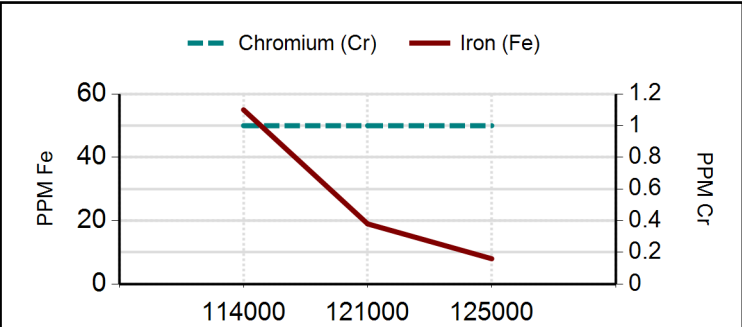
**Southeast Asia**  
Kuala Lumpur, Singapore

**Europe**  
Prague

TEST METHODS:

Acid Number:	ASTM D974/D664 (*M)
Base Number:	ASTM D4739 (*M)
Base Number (Perchloric):	ASTM D2896 (*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
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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