



Oil Analysis Report

<p><u>1. CUSTOMER DETAILS:</u></p> <p><u>Customer Name:</u> E-Monitor</p> <p><u>E-mail Address:</u> oils@als.com.au</p> <p><u>Telephone Number:</u></p>	<p><u>2. VEHICLE DETAILS:</u></p> <p>Vehicle Rego. No.: E-Monitor</p> <p>Vehicle Make: Ford</p> <p>Vehicle Model: Falcon</p> <p>Vehicle Year: 1993</p> <p>Compartment Name: Engine</p> <p>System Capacity: 5.5 Ltrs</p>	<p><u>3. SAMPLE STATUS:</u></p> <p>LEGEND</p> <p> SEVERE</p> <p> CAUTION</p> <p> NORMAL</p> <div style="font-size: 48px; text-align: center; margin-top: 10px;">?</div>
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4. INTERPRETATION and RECOMMENDED ACTION:

Piston ring and cylinder wear indicated. PQ Index number (ferrous material) appears higher than typical. Dirt level (alumina + silica) abnormal. Viscosity within specified operating range.

Action : As oil and filter(s) already changed, check all dirt access points including filter and air induction system. Resample 3000 kms if filter debris was negligible to further monitor.

5. SAMPLE and ANALYSIS DATA: (Please refer to the second page of this report for a description of the tests)

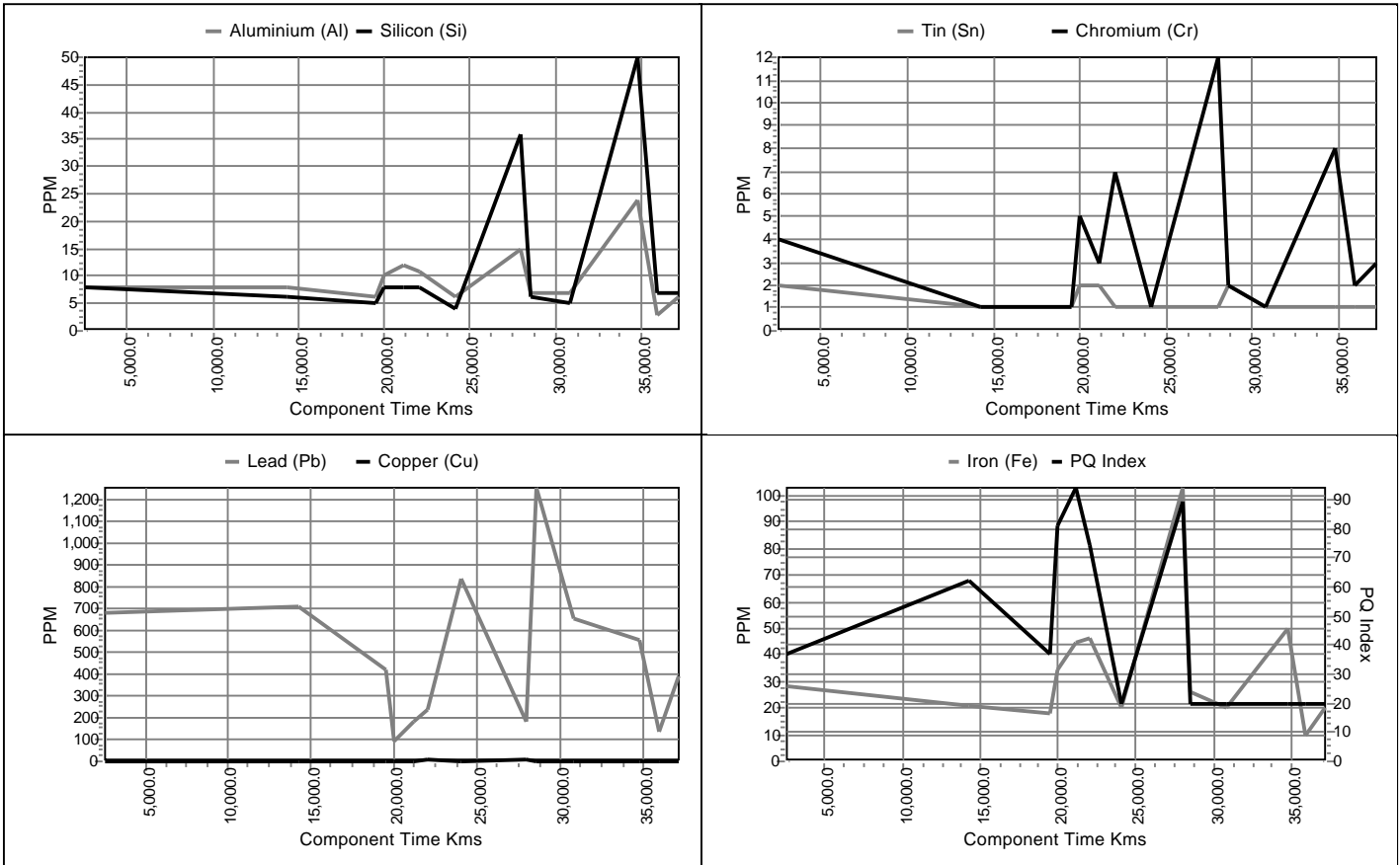
UIN: 15E82	Current Sample	Last Sample	Previous Sample	Previous Sample	Previous Sample	Previous Sample
SAMPLE STATUS	?	✓	✓	✓	✓	✓
SAMPLE NO. (SIF NO.)	1617116	1231832	1224070	1117913	728316	1017660
LABORATORY NO.	1345829	1144271	1132176	1109103	1100519	1050766
DATE SAMPLED	02/12/99	28/03/98	15/02/98	23/11/97	28/10/97	10/02/97
DATE RECEIVED	03/12/99	30/03/98	17/02/98	25/11/97	30/10/97	20/02/97
DATE COMPLETED	05/12/01	05/12/01	05/12/01	05/12/01	05/12/01	05/12/01
VEHICLE Kms	28000	22047	21163	20020	19519	14300
OIL Kms	5000	2527	1649	Not Provided	5063	14300
FILTER Kms	5000	2527	1649	Not Provided	5063	Not Provided
OIL BRAND	Valvoline	Valvoline	Valvoline	Valvoline	Penrite	Penrite
OIL TYPE	XLD	XLD	XLD	XLD	HPR 50	HPR 50
OIL GRADE	20W50	20W50	20W50	20W50	40W70	40W70
OIL ADDED Ltrs	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
OIL CHANGED	Changed	Changed	Not Changed	Not Changed	Changed	Changed
FILTER CHANGED	Changed	Changed	Not Changed	Not Provided	Changed	Not Provided
ANALYSIS						
	- Metals (ppm)					
Aluminium (Al)	15	11	12	10	6	8
Copper (Cu)	8	10	2	2	1	1
Chromium (Cr)	12	7	3	5	1	1
Iron (Fe)	103	46	45	34	18	21
Lead (Pb)	185	240	184	90	416	710
Tin (Sn)	1	1	2	2	1	1
	- Contaminants / Additives (ppm)					
Silicon (Si)	36	8	8	8	5	6
Sodium (Na)	2	3	2	<1	<1	<1
	- Physical Tests					
Water (% by crackle)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Viscosity (cSt,40°C)	130	125	120	118	321	310
PQ Index	89	74	94	81	37	62
Fuel	Pass	Pass	Pass	Pass	Pass	Pass

"This analysis report is dependent upon the accurate completion of the sample information form and correct sampling techniques as advised. The analysis is intended as an aid only in predicting mechanical wear and should not be regarded as a substitute for proper servicing or mechanical inspection. The company does not accept any liability whatsoever in respect of any loss or damage (including loss of profits, economic or other consequential loss or damage) however caused which may arise directly, or indirectly, as a result of the matters referred to in this analysis report."

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6. TREND GRAPHS:

UIN: 15E82



7. DESCRIPTION OF TESTS:

Elements and their Sources:	Maximum Acceptable Levels:				
	Engine: Petro.	Diesel	Transmission: Manual Automatic		Differential:
Aluminium - Pistons, bearings, bushings, torque converter, washers, gears, housings, pumps, dust	13 (18 OHC)	13	18	15	16
Chromium - Piston rings, bearings, shafts, gears, coolant additive	10	8	4	4	4
Copper - Bearings, bushings, thrust washers, bronze gears, clutch packs, oil cooler	22	22	45	250	25
Iron - Cylinders/liners, crankshaft, valve train, piston pins, gears, bearings	100	90	150	75	400
Lead - Bearings, bushes, clutch pack, grease, oil additive, petrol additive	Trend	36	Trend	Trend	Trend
Silicon - Dust entry, oil anti-foaming additive, coolant additive, seals and gaskets	20	20	50	20	50
Sodium - Coolant additive, oil detergent additive	50	50	Trend	Trend	Trend
Tin - Bearings, bushes, plating on pistons, alloy of bronze	8	8	20	20	20

** Please note that all levels above are based on standard oil change intervals of 10,000 kms for Engines and 50,000 kms for Transmissions / Differentials. Results may be factored for extended kms on oil.

Other Physical Tests:

PQ Index - This test measures the Total Iron in the sample irrespective of particle size	80	80	300	90	500
Water - Indicates water contamination due to the presence of coolant or a buildup of condensation	0.1	0.1	0.4	0.1	0.4
Soot - This test measures the percentage of fuel carbon contamination due to incomplete combustion	N/A	2.0	N/A	N/A	N/A
Fuel- Indicates petrol/diesel contamination due to leaking injectors, pump or carburettor	3.0	2.0	N/A	N/A	N/A
Viscosity - A measure of the oils resistance to flow at a given temperature	----- Analysis Result reported as a "Pass" or "Fail" ----- ----- Refer to Oil Manufacturers Specifications -----				