

Lubricant Inspection Report



METRO TECH SYSTEMS LTD

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ISO 9001:
Registered Firm

Client
Location
Unit Number
Component
Make / Model
Serial #

Calgary
JEEP GLADIATOR
Engine
JEEP GLADIATOR

Lab Number:	ZZ2192	ZZ3753	ZZ5265	ZZ6228	ZZ9186	New Oil
Sample Date:	May 07/21	Jul 06/21	Aug 18/21	Sep 13/21	Dec 01/21	Oct 30/19
Unit:	10079.0 Km	16000.0 Km	16821.0 Km	20000.0 Km	30000.0 Km	
Oil:	9079.0 Kms	6000.0 Kms	6821.0 Kms	3179.0 Kms	10000.0 Km	
Oil Type:	AMSOIL S.S.0W20	AMSOIL S.S.0W20	AMSOIL S.S.0W20	AMSOIL S.S.0W20	AMSOIL S.S.0W20	AMSOIL S.S.0W20
METALS (D5185): Milligrams per Kilogram (PPM)						
Highlighted Test Results Indicate Abnormal Concentrations						
Tin	0	1	1	1	0	0
Lead	1	1	1	1	1	0.1
Copper	9	9	9	10	8	0.1
Aluminum	6	2	3	1	2	0.2
Silicon	87	37	45	16	15	3
Iron	48	40	48	22	28	1
Chromium	1	0.7	1	0.5	0.9	0
Silver	0	0	0	0	0	0
Zinc	722	667	715	779	668	788
Magnesium	806	761	858	891	779	16
Nickel	0.8	0	0	0	0	0
Barium	0	0	0	0	0	0
Sodium	9	16	17	9	8	1
Calcium	1250	1100	1150	1181	1050	3518
Vanadium	0	0	0	0	0	0
Phosphorus	553	548	559	661	533	687
Molybdenum	183	167	176	181	165	141
Boron	126	132	127	215	70	228
Manganese	13	17	22	5	20	0
PHYSICAL PROPERTIES						
Viscosity (D445) @ 40C						
Viscosity (D445) @ 100C	8.889	8.873	9.080	8.869	8.901	8.844
Water (D4007) (% v/v)	0	0	0	0	0	0
Solids (D4007) (% v/v)	<0.1	<0.1	0	0	0	0
Glycol	Trace	Trace	Trace	Trace	Trace	
Fuel Dilution	No	No	No	No	No	
OTHER PROPERTIES						
Acid No. (D664)						2.08
Base No. (D2896)						13.90
Base No. (D4739)						
Oxidation						
Nitro Compounds						
Organic Nitrates						
Particle Count(ISO 4406)						
Oil Changed?	YES	No	YES	YES	YES	
COMMENTS	RATING SYSTEM:	A is LOW	B is LOW to MODERATE	C is MODERATE	D is HIGH	E is SEVERE
ZZ2192 - ALERT!Tests indicate the need to CHANGE OIL & FILTER.Silicones (D).Cylinders; pistons; rings wear (A).Check for a coolant leak.** Please monitor Glycol contamination **						
ZZ3753 - ALERT!Tests indicate the need to CHANGE OIL & FILTER.Silicones (C).Cylinders; pistons; rings wear (A).Check for a coolant leak.**Please monitor Glycol contamination.**						
ZZ5265 - ALERT!Tests indicate the need to CHANGE OIL & FILTER.Silicones (C).Cylinders; pistons; rings wear (A).Check for a coolant leak.						
ZZ6228 - Tests indicate the need to CHANGE OIL & FILTER.Silicones (B).Low alloy steel wear (A).**Please Monitor Glycol Contamination.**						
ZZ9186 - Tests indicate the need to CHANGE OIL & FILTER.Silicones (A).Cylinders; pistons; rings wear (A).** Suspect trace glycol residue **						
Laboratory Telephone (403) 295-8803						
Results were verified on Dec 02/21 by T. Wong						
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