

Laboratory **Regional Forensic Science Laboratory, Northern Range,
Dharamshala, Distt. Kangra, Himachal Pradesh**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-7524**

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Validity **04.07.2018 to 03.07.2020**

Last Amended on -

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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FORENSIC-TESTING

I.	CHEMISTRY			
a)	Acid Burn Cases (Detection)			
	HCl	pH	WPM RFSL/NR/Chem & Toxi No.01- 1.1(a) & 1.1(b)	1 to 14
		Chloride ion	WPM RFSL/NR/Chem & Toxi No.01- 1.1(c)	0.1 mg/ml to 10 mg/ml
	H ₂ SO ₄	pH	WPM RFSL/NR/Chem & Toxi No.01- 1.2(a) & 1.2(b)	1 to 14
		Sulphate ion	WPM RFSL/NR/Chem & Toxi No.01- 1.2(c)	0.1 mg/ml to 10 mg/ml
	HNO ₃	pH	WPM RFSL/NR/Chem & Toxi No.01- 1.3(a) & 1.3(b)	1 to 14
		Nitrate ion	WPM RFSL/NR/Chem & Toxi No.01- 1.3(c)	0.1 mg/ml to 10 mg/ml
b)	Arson Cases (Detection)			
	Residues of Petrol, Kerosene, Diesel	TLC	WPM RFSL/NR/Chem & Toxi No.01- 2.2	0.1 µl to 1.0 µl
		GC	WPM RFSL/NR/Chem & Toxi No.01- 2.3	0.1 µl to 1.0 µl
c)	Trap Cases (Detection)			
	Phenolphthalein	pH	WPM RFSL/NR/Chem & Toxi No.01-3.1.1(a)	8.3 to 10.0
		Acid-Alkali Test	WPM RFSL/NR/Chem & Toxi No.01- 3.1.1 (b)	0.1 mg/ml to 10 mg/ml

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		TLC	WPM RFSL/NR/Chem & Toxi No.01-3.1.3	0.1 mg/ml to 10 mg/ml
		Spectrophotometric examination	WPM RFSL/NR/Chem & Toxi No.01-3.1.4	0.1 µg/ml to 10 µg/ml
	Carbonate ion	Hydrochloric acid Test	WPM RFSL/NR/Chem & Toxi No.01-3.2. (a)	0.1 mg/ml to 10 mg/ml
		Silver Nitrate Test	WPM RFSL/NR/Chem & Toxi No.01-3.2. (b)	0.1 mg/ml to 10 mg/ml
	Sodium ion	Uranyl Zinc Acetate Test	WPM RFSL/NR/Chem & Toxi No.01-3.3 (a)	0.1 mg/ml to 10 mg/ml
		Flame Test	WPM RFSL/NR/Chem & Toxi No.01-3.3 (b)	5 mg/ml to 10 mg/ml
d)	Quantification of Ethyl alcohol in Blood, Urine samples	Modified Cuvette Method	WPM RFSL/NR/Chem & Toxi No.01- 4.2	5% to 800 mg%
II.	TOXICOLOGY			
a)	Viscera, Blood & Urine samples (Detection)			
	Ethyl alcohol	Dichromate Test	WPM RFSL/NR/Chem & Toxi No.01- 4.1.1a	2.0 mg/ml
		Iodoform Test	WPM RFSL/NR/Chem & Toxi No.01- 4.1.1b	2.0 mg/ml
	Methanol	Schiff's Test	WPM RFSL/NR/Chem & Toxi No.01- 4.1.2a	2.0 mg/ml
		Chromotropic acid Test	WPM RFSL/NR/Chem & Toxi No.01- 4.1.2b	2.0 mg/ml
	Turpentine	Sulphuric acid test	WPM RFSL/NR/Chem & Toxi No.01- 4.1.3a	2.0 mg/ml
		Marquis test	WPM RFSL/NR/Chem & Toxi No.01- 4.1.3b	2.0 mg/ml
		Vanillin test	WPM RFSL/NR/Chem & Toxi No.01- 4.1.3c	2.0 mg/ml

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	Hydrocyanic acid	Purssian blue Test	WPM RFSL/NR/Chem & Toxi No.01- 4.1.4a	1.0 mg/ml
	Phenol	Ferric chloride	WPM RFSL/NR/Chem & Toxi No.01- 4.1.5a	2.0 mg/ml
		Libermann's test	WPM RFSL/NR/Chem & Toxi No.01- 4.1.5b	2.0 mg/ml
	Phosphine	Mercuric chloride/bromide test	WPM RFSL/NR/Chem & Toxi No.01- 4.3.1	1.0 mg/ml
	Carbon monoxide	Hoppe-Seyler's test	WPM RFSL/NR/Chem & Toxi No.01- 4.3.2a	10 %
		Carbon monoxide-carboxy- haemoglobin test	WPM RFSL/NR/Chem & Toxi No.01- 4.3.2b	10 %
	Zinc	Sodium hydroxide test	WPM RFSL/NR/Chem & Toxi No.01- 5.1a	0.1 mg/ml to 10 mg/ml
		Pot. Ferrocyanide test	WPM RFSL/NR/Chem & Toxi No.01- 5.1b	0.1 mg/ml to 10 mg/ml
	Copper	Ammonium hydroxide test	WPM RFSL/NR/Chem & Toxi No.01- 5.2a	0.1 mg/ml to 10 mg/ml
		Pot. Ferrocyanide test	WPM RFSL/NR/Chem & Toxi No.01- 5.2b	0.1 mg/ml to 10 mg/ml
	Aluminium	Lake Test	WPM RFSL/NR/Chem & Toxi No.01- 5.3a	0.1 mg/ml to 10 mg/ml
	Organo-Phosphorous Insecticides	Colour test	WPM RFSL/NR/Chem & Toxi No.01- 6.1a	1 µg/ml to 100 µg/ml
		TLC	WPM RFSL/NR/Chem & Toxi No.01- 6.1b	1 µg/ml to 50µg/ml
	Organo-chloro Insecticides	Colour test	WPM RFSL/NR/Chem & Toxi No.01- 6.2a	1 µg/ml to 100µg/ml
		TLC	WPM RFSL/NR/Chem & Toxi No.01- 6.2b	1 µg/ml to 50µg/ml
	Carbamate Insecticides	Colour test	WPM RFSL/NR/Chem & Toxi No.01- 6.3a	1 µg/ml to 100µg/ml
		TLC	WPM RFSL/NR/Chem & Toxi No.01- 6.3b	1 µg/ml to 50µg/ml

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	Synthetic Pyrethroid	TLC	WPM RFSL/NR/Chem & Toxi No.01- 6.4a	1 µg/ml to 50µg/ml	
	Basic Drugs/ Poisons	Screening tests	Mayer's Reagent Test	WPM RFSL/NR/Chem & Toxi No.01to 7.2.1a	10 µg/ml to 100µg/ml
			Dragendorff's reagent Test	WPM RFSL/NR/Chem & Toxi No.01to 7.2.1b	10 µg/ml to 100µg/ml
		Colour test	Marquis test	WPM RFSL/NR/Chem & Toxi No.01to 7.2.2	10 µg/ml to 100µg/ml
			Nitric acid test	WPM RFSL/NR/Chem & Toxi No.01to 7.2.2	10 µg/ml to 100µg/ml
			Formaldehyde-sulphuric acid test	WPM RFSL/NR/Chem & Toxi No.01to 7.2.2	10 µg/ml to 100µg/ml
			TLC	WPM RFSL/NR/Chem & Toxi No.01- 7.7.3	10 µg/ml to 100µg/ml
	Acidic drugs/Poisons				
	Barbiturates	Diphenyl carbazone test	WPM RFSL/NR/Chem & Toxi No.01- 8.2.1.1	10 µg/ml to 100µg/ml	
		TLC	WPM RFSL/NR/Chem & Toxi No.01- 8.2.1.2	10 µg/ml to 100µg/ml	
	Cannabinoids	Fast blue B test	WPM RFSL/NR/Chem & Toxi No.01- 8.2.2.1a	10 µg/ml to 100µg/ml	
		Duquenois-Levine Test	WPM RFSL/NR/Chem & Toxi No.01- 8.2.2.2a	10 µg/ml to 100µg/ml	
III.	BIOLOGY & SEROLOGY (Detection)				
a)	Blood	Benzidine Test	Working Procedure Manual of Biology and Serology, RFS -NR-BIO & SERO-1.1.7 (i)	Approx 10 ⁶ dilution or 1: 300000 dilution of blood	
		Phenolphthalein Test	Working Procedure Manual of Biology and Serology, RFS -NR-BIO & SERO-1.1.7 (ii)	Approx 10 ⁵ dilution	

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b)	Semen	UV light examination	Working Procedure Manual of Biology and Serology, RFSL-NR-BIO & SERO-2.1.0 (i)	254 nm and 365 nm
		Acid Phosphatase test	Working Procedure Manual of Biology and Serology, FSL -NR-BIO & SERO-2.1.0 (ii)	Approx 1 µL of semen
		Microscopic examination	Working Procedure Manual of Biology and Serology, RFSL -NR-BIO & SERO-2.1.0 (iii)	Approx 0.5 µL of semen
c)	Hair	i) Morphological examination ii) Microscopic examination	Working Procedure Manual of Biology and Serology, RFSL -NR-BIO & SERO-3.1.0 (i & ii)	<ul style="list-style-type: none">• Minimum one complete strand for origin,• In case of broken hair, minimum three strands, <p># Reference :10 or more strands for comparison</p>
d)	Saliva	Starch- Iodine test	Working Procedure Manual of Biology and Serology, RFSL -NR-BIO & SERO-4.1.0 (i)	Approx 1 µL of saliva
e)	Diatom	Acid digestion method	Working Procedure Manual of Biology and Serology, RFSL -NR-BIO & SERO-5.1.0 (i)	Approx 5gm of bone marrow/ tissue
f)	Species of Origin	Gel-diffusion test	Working Procedure Manual of Biology and Serology, RFSL -NR-BIO & SERO- 1.2.0 (i)	Approx 1 µL of blood

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g)	Blood Grouping	Absorption-elution method	Working Procedure Manual of Biology and Serology, RFSL -NR-BIO & SERO-1.3.0 (i)	Qualitative
IV. QUESTIONED DOCUMENTS				
a)	Handwriting/ Signatures Identification	Comparison of Questioned and Standard Writings/Signatures.	WPM: RFSL-NR-DOC-1 (0.7,0.8)	Qualitative
b)	Alteration (addition, substitution, obliteration, overwriting, erasures etc.)	Decipherment of original writing and detection of erasures using different light sources: -Spot Light -Transmitted light -IR Light -UV light -Oblique Light	WPM: RFSL-NR-DOC-1 (0.7,0.8, 0.9)	Qualitative
c)	Indentations	Physical examination and Oblique light examination	WPM: RFSL-NR-DOC-1 (1.4)	Qualitative
d)	Comparison of ink	Physical examination UV/IR examination	WPM: RFSL-NR-DOC-1 (1.1, 1.2)	Qualitative
e)	Comparison of paper	1- Physical examination -Color -Size 2-UV Features 3-Water mark 4-Paper Fibers 5-Printed matter	WPM: RFSL-NR-DOC-1 (1.7, 2.1)	Qualitative
f)	Printed matter	Printing defects Comparison of printed matter	WPM: RFSL-NR-DOC-1 (1.0, 1.5,2.0)	Qualitative

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g)	Stamp impressions and seals	Physical examination Side-by-Side comparison, Super-imposition	WPM: RFSL-NR-DOC-1 (1.3,1.6)	Qualitative
V. FORENSIC ELECTRONICS & COMPUTER FORENSICS				
a)	Cell Phones (android, basic, tabs, Iphones)	Data extraction and Analysis Mobile Check UFED	WPM: RFSL-NR-DOC-2 (0.6)	Qualitative
b)	SIM Cards	Data extraction and Analysis SIM Imager SIM Analyzer UFED	WPM: RFSL-NR-DOC-2 (0.6)	Qualitative
c)	Memory Cards	Data extraction and Analysis Mobile Check UFED	WPM: RFSL-NR-DOC-2 (0.6)	Qualitative
d)	Pen Drives	Data extraction and Analysis Mobile Check UFED	WPM: RFSL-NR-DOC-2 (0.6)	Qualitative