



TOGETHER
for a sustainable future

OCCASION

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TOGETHER
for a sustainable future

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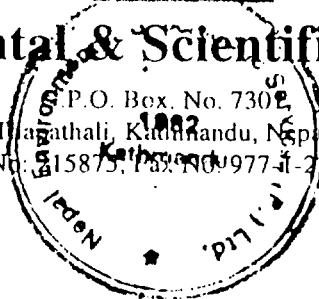
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21929

Nepal Environmental & Scientific Services (P.) Ltd.

P.O. Box No. 730
Thapathali, Kathmandu, Nepal
Tel No: 215875, Fax No: 977-1-226028



Ref.

Date: 6th Oct. 97

To,
Mr. Arjun Upadhyaya
UNIDO
Lalitpur, Nepal

Dear Sir,

Find enclosed herewith the Industrial effluent Analytical report of one hundred and five samples provided to us by your National Consultant which includes 98 BOD, 105 COD, 81 Oil and Grease, 105 Total Suspended Solids, 7 Zinc, 55 Chromium, 58 Iron, 39 Nickel, 6 Sulphate, 5 Chloride and 3 Residual Chlorine analysis all together. As per our invoice and the contract We would request you to kindly remunerate the due amount of NRs. 115,514.00 (Nepali rupees One hundred fifteen Thousand Five hundred and fourteen only) at your earliest convenience. The bill of the analysis is attached.

We would be happy if you could provide work completion certificate/ letter. Looking forward to serve you with satisfaction. Thanking you in anticipation, we remain.

With best wishes and regards.

Yours Sincerely

Dr. Toran Sharma
(Managing Director)



7-10-97



Nepal Environmental & Scientific Services (P.) Ltd.

G.P.O. Box. No. 7301, Thapashali, Kathmandu, Nepal.

Tel. No: 977-1-215875, 244989, Fax No: 977-1-226028, E-mail: ness@mos.com.np

TEST CERTIFICATE

NS Accreditation No. Pra. 01/053-54

Client : UNIDO
Sample : Waste Water
Entry No. : NCL-105(W)(108)-08-97

Date received : Aug./Sept.1997
Date completed : 30 Sept.1997
Sampled by : Client

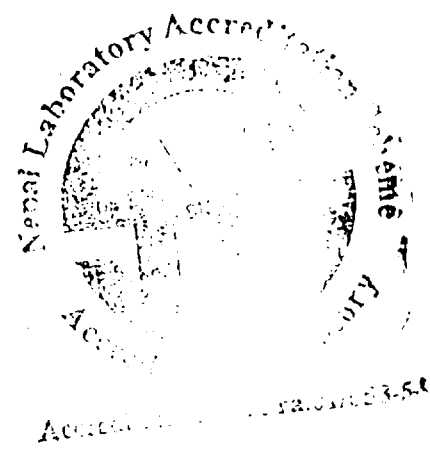
Food Processing/Beverage

UNIDO

Sample No.	Place	BODs mg/l	COD mg/l	Oil & Grease %	TSS mg/l
NTF-FO	Kathmandu	17350.00	32500.00	79.74	6333.00
NTF-FO I	Kathmandu	1305.00	1950.00	0.0184	1200.00
RT-CE	Biratnagar	2372.00	3800.00	0.0039	520.00
DFB-FO	Biratnagar	196.00	288.00	0.0004	17.00
Agro N-filter	Birgunj	1794.00	2400.00	0.0054	105.00
Agro N-FO	Birgunj	345.00	650.00	0.0124	80.00
PEP-process	Kathmandu	33.00	46.00	0.0002	57.30
PEP-BW	Kathmandu	808.00	960.00	0.0062	120.00
Bott-FO	Birgunj	188.00	300.00	0.0014	66.00
Bott-PW	Birgunj	18.00	20.50	0.0010	8.00
Bott-BW	Birgunj	30.00	76.00	0.0038	64.20

Analysed by

Checked by



NOTE : ND = Not Detected
- = Not requested for analysis

Authorized Signature

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Leather Tanning

UNIDO

Sample No.	Place	BOD ₅ mg/l	COD mg/l	Oil & Grease %	Cr mg/l	TSS mg/l
PLT-FL	Biratnagar	210.00	320.00	0.0026	-	600.00
PLT-DR	Biratnagar	32.00	2500.00	0.0025	6625.00	795.00
PLT-SK	Biratnagar	650.00	6200.00	0.014	-	2100.00
ULI (Chrome + Soda Drum)	Biratnagar	175.00	4500.00	0.0015	5375.00	1440.00
ULI (Soaking paddle inside)	Biratnagar	53.00	1100.00	9.10	-	1533.00
ULI-FO	Biratnagar	1035.00	6500.00	1.23	-	8267.00
NTI-Cr	Biratnagar	127.00	3000.00	0.0047	3500.00	2100.00
NTI-FO	Biratnagar	15.00	210.00	0.0031	0.65	27.00
NTI-PF	Biratnagar	818.00	12600.00	0.0026	0.30	2040.00



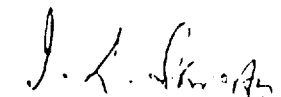
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Date received : Aug./Sept.1997
Date completed : 30 Sept.1997
Sampled by : Client

Carpet Washing

UNIDO

Sample No.	Place	BOD ₅ mg/l	COD mg/l	Oil & Grease %	TSS mg/l	Cr mg/l	Pb mg/l	Ni mg/l
CC-1	Kathmandu	82.00	180.00	0.0098	238.00	ND	6.00	0.10
CC-2	Kathmandu	86.00	266.00	0.0040	455.00	ND	26.40	0.10
CC-3	Kathmandu	69.00	162.00	0.0040	672.00	ND	5.76	0.10
CC-4	Kathmandu	170.00	315.00	0.0087	306.70	ND	7.26	0.10
CC-5	Kathmandu	137.00	228.00	0.0055	102.70	ND	17.5	0.20
CC-6	Kathmandu	115.00	225.00	0.0035	132.00	ND	9.26	0.08
HWC-1	Kathmandu	31.00	330.00	0.0058	200.00	ND	7.12	0.05
HWC-2	Kathmandu	47.00	445.00	0.0030	178.00	ND	4.50	0.05
HWC-3	Kathmandu	33.00	240.00	0.0045	132.00	ND	7.38	0.05
HWC-4	Kathmandu	5.00	150.00	0.0005	9.33	ND	23.90	0.10
HWC-5	Kathmandu	46.00	182.50	0.0043	124.00	ND	6.12	0.08
KTC-1	Kathmandu	184.00	456.70	0.0021	192.00	ND	9.26	0.18
KTC-2	Kathmandu	230.00	570.00	0.0032	315.00	ND	4.76	0.15
KTC-3	Kathmandu	110.00	210.00	0.0023	294.00	ND	5.88	0.10
KTC-4	Kathmandu	122.00	225.00	0.0019	114.00	ND	2.16	0.08
KTC-5	Kathmandu	74.00	115.00	0.0009	50.70	ND	23.12	0.08

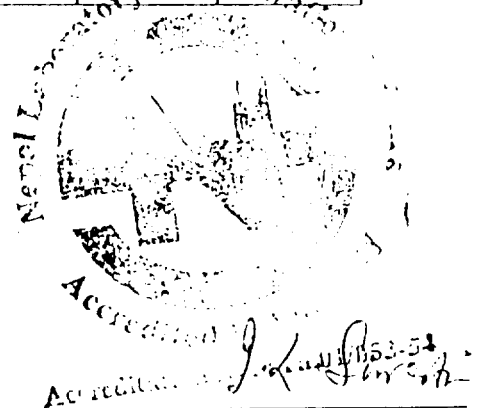
Sprita

Analysed by

H. Pradi

Checked by

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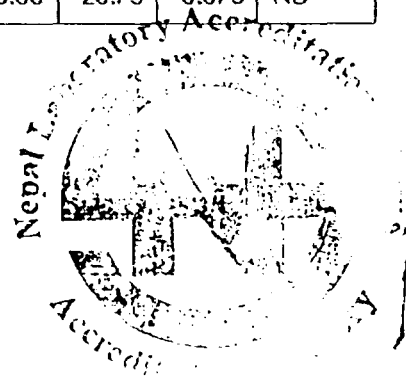
Carpet Dyeing

UNIDO

Sample No.	Place	BOD ₅ mg/l	COD mg/l	Oil & Grease %	TSS mg/l	Fe mg/l	Ni mg/l	Cr mg/l
BDC-Sediment	Kathmandu	311.0	390.00	0.002	86.70	0.68	0.075	0.05
BDC-Dye-Dark	Kathmandu	784.00	820.00	0.0012	86.70	0.36	0.075	0.14
BDC-Dye-light	Kathmandu	352.00	860.00	0.0023	71.43	0.45	0.05	0.08
MED-Dye-Dark	Kathmandu	408.00	730.00	0.0024	35.00	1.15	ND	0.75
MED-Dye-light	Kathmandu	53.00	380.00	0.0011	43.33	ND	0.05	ND
DDI-Dye-Dark- Green	Kathmandu	618.00	720.00	0.0012	85.00	3.25	0.20	0.25
DDI-Dye-Light-Wash	Kathmandu	370.00	700.00	0.0033	110.00	0.70	0.08	0.10
PC-Dye-Dark	Kathmandu	2208.00	2300.00	0.0058	400.00	2.00	0.24	ND
PC-Dye-Dark-yellow	Kathmandu	1882.00	2300.00	0.0038	100.00	0.65	0.12	ND
PC-Dye-Light	Kathmandu	648.00	860.00	0.0042	280.00	0.38	0.05	0.05
PC-1CT	Kathmandu	105.00	410.00	0.0014	460.00	34.00	0.10	ND
PC-2CT	Kathmandu	88.00	460.00	0.0016	320.00	0.66	0.15	ND
PC-3CT	Kathmandu	210.00	620.00	0.0023	166.00	2.75	0.15	ND
PC-4CT	Kathmandu	207.00	330.00	0.0015	116.00	20.75	0.075	ND

Analysed by

Checked by



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Accreditation No. Pra. 01/053-54

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NS Accreditation No. Pra. 01/053-54

Client : UNIDO
Sample : Waste Water
Entry No. : NCL-105(W)(108)-08-97

Date received : Aug./Sept.1997
Date completed : 30 Sept.1997
Sampled by : Client

Soap / Detergent

UNIDO

Sample No.	Place	BOD ₅ mg/l	COD mg/l	Oil & Grease %	TSS mg/l
AS-FO	Biratnagar	3376.00	33500.00	0.09	6000.00
AS-2W	Biratnagar	3560.00	29000.00	0.37	14767.00
AS-3W	Biratnagar	4424.00	58000.00	0.442	2110.00
HS-FO	Biratnagar	3832.00	24200.00	0.01	17400.00
HS-1W	Biratnagar	4184.00	51000.00	0.6436	18600.00
HS-3W	Biratnagar	2304.00	12200.00	0.1036	8567.00
Pjs-1W	Birgunj	8220.00	19250.00	0.118	6240.00
Pjs-FP	Birgunj	9255.00	25750.00	0.219	10300.00

Analysed by

Checked by

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Date received : Aug./Sept.1997
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Sampled by : Client

Vegetable Oil/Ghee Industry

UNIDO

Sample No.	Place	BOD ₅ mg/l	COD mg/l	Oil & Grease %	Ni mg/l	TSS mg/l
AV-NW	Biratnagar	4717.00	5320.00	0.5804	0.25	5350.00
NV-CE	Biratnagar	124.00	800.00	0.0016	0.053	55.00
NV-1T	Biratnagar	798.00	4000.00	0.055	0.077	1520.00
NV-2T	Biratnagar	824.00	1345.00	0.0115	0.08	160.00
AV-CE	Biratnagar	5003.00	8900.00	1.4212	0.502	13600.00
NSSO-FO	Birgunj	8.00	18.50	0.0053	ND	20.00
NVU-1	Kathmandu	365.00	420.00	0.0068	3.10	104.00
NVU-2	Kathmandu	1084.00	2080.00	0.0231	3.05	320.00
NVU-3	Kathmandu	980.00	1090.00	0.0032	2.30	86.00

Spita
Analysed by

ABSheli
Checked by



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K. K. Suresh
Authorised Signature

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Pulp and Paper

UNIDO

Sample No.	Place	BOD ₅ mg/l	COD mg/l	Total Sulphate %	TSS mg/l	Fe mg/l	Cl mg/l	Res. Cl ₂ mg/l
EP-WLMD	Biratnagar	504.00	1400.00	-	880.00	0.50	-	-
EP-WLP	Biratnagar	985.00	1350.00	-	147.00	5.00	-	-
EP-BLMD	Biratnagar	394.00	7200.00	2.20	380.00	13.50	616.00	-
EP-BLSP	Biratnagar	1120.00	2750.00	5.40	333.00	7.20	12417.43	-
BPP-FO	Birgunj	318.00	4100.00	0.014	1620.00	2.70	291.56	ND
BPP-PBP	Birgunj	1824.00	9833.30	0.05	2044.00	2.64	513.94	ND
BPP-BLQ	Birgunj	32450.00	136000.00	0.70	15200.00	8.90	2470.90	ND
BPP-KM	Birgunj	317.00	500.00	0.007	1420.00	2.13	-	-



Acc. No. Pra. 01/053-54

Pranita

Analysed by

Abhel

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J. L. S. 1997

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Kathmandu

TEST CERTIFICATE

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Textile: Dyeing and Washing

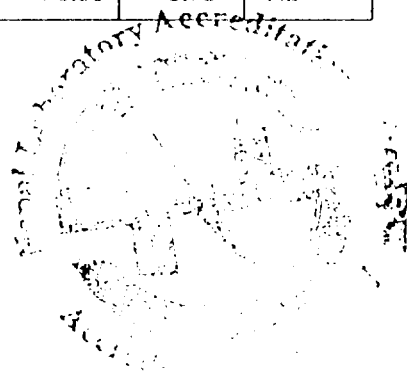
UNIDO

Sample No.	Place	BOD ₅ mg/l	COD mg/l	Oil & Grease %	TSS mg/l	Fe mg/l	Cr mg/l
AT-FO	Biratnagar	19.00	120.00	0.0008	19.00	0.92	0.075
AT-CE	Biratnagar	55.00	470.00	0.0023	103.00	9.50	ND
SU-DW	Biratnagar	3.00	820.00	0.0012	39.00	2.53	0.038
SU-Print	Biratnagar	24.00	190.00	0.0022	795.00	-	-
SU-PW	Biratnagar	73.00	280.00	0.002	75.00	2.075	ND
SU-DY	Biratnagar	1134.00	3000.00	0.108	12200.00	4.88	0.25
PT-Jet	Biratnagar	368.00	28000.00	4.627	400.00	25.20	0.04
PT-JIG	Biratnagar	972.00	38000.00	0.0015	5700.00	57.50	ND
PT-FO	Biratnagar	732.00	5750.00	0.003	140.00	3.84	ND
Annalex-FO	Birgunj	40.00	210.00	0.0098	19.00	0.15	ND
Annalex-Pr.Wa	Birgunj	50.00	460.00	0.0057	79.00	0.14	ND
Annalex-FW	Birgunj	1995.00	23750.00	0.096	6700.00	0.60	ND
Annalex-VD	Birgunj	5.00	295.00	0.0069	22.00	0.55	ND
Annalex-Scouring	Birgunj	96.00	313.30	0.0128	76.00	0.98	ND

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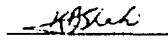
Iron and Steel Galvanising

UNIDO

Sample No.	Place	COD mg/l	TSS mg/l	Zn mg/l	Fe mg/l	Cr mg/l
APS-ST	kathmandu	96.00	30.00	41.50	350.00	4.50
APS-Post	Kathmandu	26.00	12.50	3.93	2.35	1.08
Hipco-SR	Birgunj	26.50	9.00	4.38	30.63	ND
Hipco-FR	Birgunj	31.50	5.30	0.37	4.25	0.85
Hipco-FO	Birgunj	206.00	60.00	10.00	406.25	0.08
Hipco-Coolant	Birgunj	1700.00	290.00	0.41	4.88	0.13
Piwi-main-drain	Biratnagar	160.00	80.00	31.00	132.50	ND

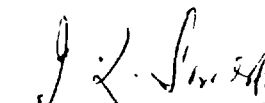


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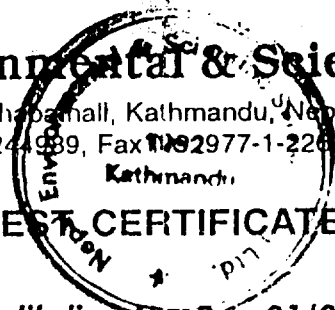

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Client	: UNIDO	Date received	: Aug./Sept.1997
Sample	: Waste Water	Date completed	: 30 Sept.1997
Entry No.	: NCL-105(W)(108)-08-97	Sampled by	: Client

Distillery / Brewing

UNIDO

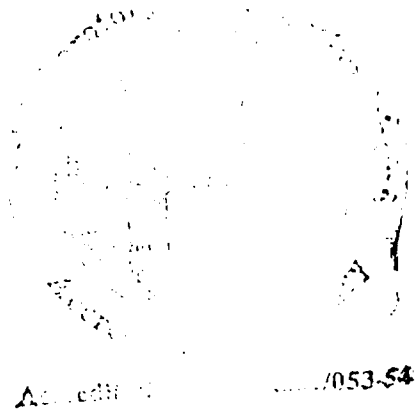
Sample No.	Place	BOD ₅ mg/l	COD mg/l	TSS mg/l
ShD-SP	Birgunj	13040.00	54000.00	11230.00
ShD-CWW	Birgunj	4200.00	9500.00	960.00
ShD-SW	Birgunj	19080.00	102000.00	10000.00
Mtev-FO1	Birgunj	478.00	1075.00	84.00
Mtev-FO2	Birgunj	514.00	725.00	96.00
Mtev-BW	Birgunj	248.00	500.00	1670.00
Mtev-BrFm	Birgunj	2670.00	3866.70	480.00
HIB-FO	Kathmandu	5.00	106.00	60.00
HIB-Wash	Kathmandu	4.00	41.00	-82.50

Anita

Analysed by

[Signature]

Checked by



NOTE : ND = Not Detected
- = Not requested for analysis

[Signature]
Authorised Signature

- NOTE:
- The result listed refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
 - Total liability of our institute is limited to the Invoiced amount.
 - Samples will be destroyed after one month from the date of issue of test certificate unless otherwise specified.
 - This report is not to be reproduced wholly or in part and cannot be used as an evidence in the Court of Law and should not be used in any advertising media without our special permission in writing.