North Country Environmental Services, Inc.

north country
ENVIRONMENTAL SERVICES

3 Pitkin Court
Montpelier, Vermont 05602

(802) 223-7221
(802) 223-7128 Fax

June 15, 2000

Mr. Michael J. Hanscom
City of Concord WWTF
General Service Department
125 Hall Street
Concord, New Hampshire 03301-3228

RE: Leachate Consolidation Project
North Country Environmental Services, Inc. Landfill
May 2000 - VOC and SVOC Analytical Reports

Dear Mr. Hanscom:

Enclosed please find the May 2000 analytical report for the consolidated leachate samples collected at North Country Environmental Services, Inc. landfill on May 11, 2000.

The VOC (EPA Method 8260B) and SVOC (EPA Method 8270) analytical results indicate that the consolidated leachate delivered to your facility is non-hazardous. We will continue to collect monthly samples of the consolidated leachate and forward the analytical results to your office per your request.

Please call if you have any questions.

Sincerely,

NORTH COUNTRY ENVIRONMENTAL SERVICES, INC.

David E. Adams, P.E., Sr. Project Manager
Permits, Compliance & Engineering

Enclosure

cc: Jon A. Bushhold, City of Concord
Larry Lackey, North Country Environmental Services, Inc. (w/o enc.)
Lenny Wing, North Country Environmental Services, Inc. (w/o enc.)
Al Sabino, North Country Environmental Services, Inc. (w/o enc.)
Robert Banfield, North Country Environmental Services, Inc. (w/o enc.)
Michael McCluskey, P.E., NHDES

[C:\Casella\Leachate\Concord WWTP Reports\2000\Letter-M.Hanscom, NCES Consolidated Leachate Report (May 2000).doc]

ENDYNE, INC.

Laboratory Services

160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

Casella Waste Systems
3 Pitkin Court
Montpelier, VT 05602
Attn: Dave Adams

PROJECT: NCES Landfill
ORDER ID: 7318
RECEIVE DATE: May 12, 2000
REPORT DATE: May 23, 2000

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Different groups of analyses may be reported under separate cover.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits, unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

ENDYNE, INC.

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Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

SW 8260B

CLIENT: Casella Waste Systems
PROJECT: NCES Landfill
SITE: Consolidation Tank
DATE RECEIVED: May 12, 2000
REPORT DATE: May 23, 2000
ANALYSIS DATE: May 20, 2000

ORDER ID: 7318
REFERENCE NUMBER: 154835
DATE SAMPLED: May 11, 2000
TIME SAMPLED: 12:15 PM
SAMPLER: JC
ANALYST: 725

Parameter	Result ug/L
Acetone	5,820.
Benzene	< 10.0
Bromobenzene	< 10.0
Bromochloromethane	< 20.0
Bromodichloromethane	< 10.0
Bromoform	< 10.0
Bromomethane	< 50.0
2-Butanone	10,000.
n-Butylbenzene	< 10.0
sec-Butylbenzene	< 10.0
tert-Butylbenzene	< 10.0
Carbon Disulfide	< 100.
Carbon Tetrachloride	< 10.0
Chlorobenzene	< 10.0
Chloroethane	< 50.0
2-Chloroethyl Vinyl Ether	< 200.
Chloroform	< 10.0
Chloromethane	< 100.
2-Chlorotoluene	< 10.0
4-Chlorotoluene	< 10.0
Dibromochloromethane	< 10.0
1,2-Dibromo-3-Chloropropane	< 20.0
1,2-Dibromoethane	< 20.0
Dibromomethane	< 20.0
1,2-Dichlorobenzene	< 10.0
1,3-Dichlorobenzene	< 10.0
1,4-Dichlorobenzene	< 10.0
Dichlorodifluoromethane	< 100.
1,1-Dichloroethane	11.5
1,2-Dichloroethane	< 10.0
1,1-Dichloroethene	< 10.0
cis-1,2-Dichloroethene	< 10.0
trans-1,2-Dichloroethene	< 10.0
1,2-Dichloropropane	< 10.0
1,3-Dichloropropane	< 10.0
2,2-Dichloropropane	< 10.0

Parameter	Result ug/L
1,1-Dichloropropene	< 10.0
cis-1,3-Dichloropropene	< 10.0
trans-1,3-Dichloropropene	< 10.0
Diethyl Ether	189.
Ethylbenzene	28.2
Hexachlorobutadiene	< 50.0
2-Hexanone	596.
Isopropylbenzene	< 10.0
p-Isopropyltoluene	< 10.0
Methylene Chloride	< 50.0
4-Methyl-2-Pentanone	315.
MTBE	107.
Naphthalene	< 50.0
n-Propylbenzene	< 10.0
Styrene	< 10.0
1,1,1,2-Tetrachloroethane	< 20.0
1,1,2,2-Tetrachloroethane	< 20.0
Tetrachloroethene	< 10.0
Tetrahydrofuran	1,280.
Toluene	98.9
1,2,3-Trichlorobenzene	< 20.0
1,2,4-Trichlorobenzene	< 20.0
1,1,1-Trichloroethane	< 10.0
1,1,2-Trichloroethane	< 10.0
Trichloroethene	< 10.0
Trichlorofluoromethane	< 20.0
1,2,3-Trichloropropane	< 20.0
1,2,4-Trimethylbenzene	< 10.0
1,3,5-Trimethylbenzene	< 10.0
Vinyl Chloride	< 20.0
Xylenes, Total	66.4
Surrogate 1	103.%
Surrogate 2	97.%
Surrogate 3	100.%
UIP's	> 10.

ENDYNE, INC.
160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

CHAIN-OF-CUSTODY-RECORD

35701
1 of 1

Project Name:	Reporting Address:	Billing Address:
NCES Landfill Bethlehem, NH	3 Pitkin Court, Montpelier, VT.	Same
Endyne Order ID: (Lab Use Only) 7318 -O -I -S	Company: Casella Waste Contact Name/Phone #: David Adams	Sampler Name: Jason Cross (Sanborn, Head & Associates, Inc.) Phone #: 802-728-2000

Ref # (Lab Use Only)	Sample Identification	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
154835	Consolidation Tank	Leachate			5-11-00 / 12:15	2	G / VOA / VOA		24	HCL	
						1	G / 1L		25	NONE	

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
	5-11-00 / 1315			John Sulli	5/12/00 1:30

New York State Project: Yes ____ No ____

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	PP13 Metals
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	RCRA8 Metals
4	Nitrite N	9	BOD	14	Turbidity	19	8021B	(24)	(8260)/8260B	29	
5	Nitrate N	10	Alkalinity	15	Conductivity	20	8010/8020	(25)	(8270) B/N or Acid	30	
31	Metals (As Is, Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sr, Ti, Tl, V, Zn										
32	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)					33					
34	Other										

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ENDYNE, INC.

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160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

Casella Waste Systems
3 Pitkin Court
Montpelier, VT 05602
Attn: Dave Adams

PROJECT: NCES Landfill
ORDER ID: 7318
RECEIVE DATE: May 12, 2000
REPORT DATE: May 30, 2000

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Different groups of analyses may be reported under separate cover.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits, unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

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Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

SW 8270C

CLIENT: Casella Waste Systems
PROJECT: NCES Landfill
SITE: Consolidation Tank
DATE RECEIVED: May 12, 2000
REPORT DATE: May 30, 2000
ANALYSIS DATE: May 26, 2000

ORDER ID: 7318
REFERENCE NUMBER: 154835
DATE SAMPLED: May 11, 2000
TIME SAMPLED: 12:15 PM
SAMPLER: JC
ANALYST: 917

Parameter	Result ug/L
Acenaphthene	< 50.0
Acenaphthylene	< 50.0
Aniline	< 250.
Anthracene	< 50.0
Azobenzene	< 125
Benzidine	< 250.
Benzo(a)anthracene	< 50.0
Benzo(b&k)fluoranthene	< 50.0
Benzo(a)pyrene	< 50.0
Benzo(g,h,i)perylene	< 50.0
Bis(2-chloroethyl)ether	< 125.
Bis(2-chloroethoxy)methane	< 125.
Bis(2-ethylhexyl)phthalate	< 250.
Bis(2-chloroisopropyl)ether	< 250.
4-Bromophenyl phenyl ether	< 50.0
Butyl benzyl phthalate	< 250.
Carbazole	< 250
4-Chloroaniline	< 125.
1-Chloronaphthalene	< 50.0
2-Chloronaphthalene	< 50.0
4-Chlorophenyl phenyl ether	< 50.0
Chrysene	< 50.0
Dibenzofuran	< 50.0
Dibenzo(a,h)anthracene	< 50.0
Di-n-butylphthalate	< 250.
1,2-Dichlorobenzene	< 50.0
1,3-Dichlorobenzene	< 50.0
1,4-Dichlorobenzene	< 50.0
3,3'-Dichlorobenzidine	< 125.
Diethyl phthalate	< 250.
Dimethyl phthalate	< 250.
2,4-Dinitrotoluene	< 125.
2,6-Dinitrotoluene	< 125.
Di-n-octylphthalate	< 250.
Fluoranthene	< 50.0
Fluorene	< 50.0
Hexachlorobenzene	< 125.
Hexachlorobutadiene	< 125.
Hexachlorocyclopentadiene	< 500.
Hexachloroethane	< 125.
Indeno(1,2,3-cd)pyrene	< 50.0
Isophorone	< 50.0

Parameter	Result ug/L
1-Methylnaphthalene	< 50.0
2-Methylnaphthalene	< 50.0
Naphthalene	< 50.0
1-Naphthylamine	< 250.
2-Naphthylamine	< 250.
2-Nitroaniline	< 500.
3-Nitroaniline	< 500.
4-Nitroaniline	< 500.
Nitrobenzene	< 125.
N-Nitroso-di-n-butylamine	< 125.
N-Nitrosodiphenylamine	< 125.
N-Nitrosodimethylamine	< 250.
N-Nitrosodi-n-propylamine	< 250.
N-Nitrosopiperidine	< 250.
Phenanthrene	< 50.0
Pyrene	< 50.0
Pyridine	< 250.
1,2,4-Trichlorobenzene	< 50.0
Benzyl alcohol	< 250.
4-Chloro-3-methylphenol	< 250.
2-Chlorophenol	< 125.
2,4-Dichlorophenol	< 125.
2,6-Dichlorophenol	< 125.
2,4-Dimethylphenol	< 125.
4,6-Dinitro-2-methylphenol	< 1,250.
2,4-Dinitrophenol	< 250.
2-Methylphenol (o-cresol)	< 125.
3&4-Methylphenol (m&p-cresol)	4,130.
2-Nitrophenol	< 250.
4-Nitrophenol	< 250.
Pentachlorophenol	< 375.
Phenol	591.
2,4,5-Trichlorophenol	< 250.
2,4,6-Trichlorophenol	< 250.
Acid Surrogate 1	60.%
Acid Surrogate 2	61.%
Acid Surrogate 3	104.%
Base/Neutral Surrogate 1	33.%
Base/Neutral Surrogate 2	91.%
Base/Neutral Surrogate 3	102.%
UIP's	> 10.

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CHAIN-OF-CUSTODY-RECORD

35701
1 of 1

Project Name: NCES Landfill Bethlehem, NH	Reporting Address: 3 Pitkin Court, Montpelier, VT.	Billing Address: Same
Endyne Order ID: (Lab Use Only) 7318 -O -I -S	Company: Casella Waste Contact Name/Phone #: David Adams	Sampler Name: Jason Cross (Sanborn, Head & Associates, Inc.) Phone #: 802-728-3000

Ref # (Lab Use Only)	Sample Identification	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
154835	Consolidation Tank	Leachate			5-11-00 12:15	2	G VOA		24	HCL	
						1	G 1L		25	NONE	

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
[signature]	5-11-00 / 1315			John Sulli	5/12/00 1:30

New York State Project: Yes ____ No ____

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	PP13 Metals
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	RCRA8 Metals
4	Nitrite N	9	BOD	14	Turbidity	19	8021B	(24)	8260/8260B	29	
5	Nitrate N	10	Alkalinity	15	Conductivity	20	8010/8020	(25)	8270 B/N or Acid	30	
31	Metals (As Is, Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Si, Sr, Ti, Tl, V, Zn										
32	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)					33					
34	Other										

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