Bill as Introduced

HB 1201 – AS INTRODUCED

2000 SESSION

00-2451
08/09

HOUSE BILL ***1201***

AN ACT creating a committee to study incentives for regionalization of sludge and septage facilities.

SPONSORS: Rep. Patten, Carr 9

COMMITTEE: Environment and Agriculture

ANALYSIS

This bill creates a committee to study the current practices for sludge and septage disposal and to investigate incentives for regionalization of treatment facilities.

Explanation: Matter added to current law appears in ***bold italics.***
Matter removed from current law appears [~~in brackets and struckthrough.~~]
Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

HB 1201 – AS INTRODUCED

00-2451
08/09

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand

AN ACT creating a committee to study incentives for regionalization of sludge and septage facilities.

Be it Enacted by the Senate and House of Representatives in General Court convened:

1 Purpose. The general court acknowledges that proper disposal or reuse of municipal sludge and domestic septage is becoming increasingly difficult for New Hampshire communities and that there is a need to investigate incentives for regionalization of sludge and septage facilities to promote cost savings, encourage recycling and reuse options, and to reduce potential environmental impacts.

2 Committee Established. There is established a committee to study the current practices for sludge and septage disposal and reuse and to investigate incentives for regionalization of treatment facilities.

3 Membership and Compensation.

I. The members of the committee shall be as follows:

(a) Four members of the house of representatives, appointed by the speaker of the house, including one member each from the municipal and county government committee, the resources, recreation and development committee, and the environment and agriculture committee.

(b) Four members of the senate, appointed by the president of the senate.

II. Members of the committee shall receive mileage at the legislative rate when attending to the duties of the committee.

4 Duties. The committee shall examine treatment options for sludge and septage and investigate regional alternatives including composting, land application, and wastewater treatment facilities. The committee shall also investigate potential incentives for regionalization of septage and sludge treatment facilities.

5 Chairperson; Quorum. The members of the study committee shall elect a chairperson from among the members. The first meeting of the committee shall be called by the first-named house member. The first meeting of the committee shall be held within 45 days of the effective date of this section. Four members of the committee shall constitute a quorum.

6 Report. The committee shall report its findings and any recommendations for proposed legislation to the speaker of the house of representatives, the senate president, the house clerk, the senate clerk, the governor, and the state library on or before November 1, 2000.

7 Effective Date. This act shall take effect 60 days after its passage.

Committee Minutes

State of New Hampshire

HOUSE OF REPRESENTATIVES

Legislative Office Building, 33 North State Street
Concord, NH 03301-6328

TEL: (603) 271-3403
TDD Access: Relay NH 1-800-735-2964

COMMITTEE ON ENVIRONMENT AND AGRICULTURE

MEMORANDUM

TO: Rep. George T. Musler, Chairman
Environment and Agriculture Committee

FROM: Rep. Donald R. Philbrick, Chairman
Subcommittee on HB 1201

DATE: June 13, 2000

SUBJ: Change in Schedule for Interim Study Work Session on HB 1201

This is to inform you that the Interim Study subcommittee on HB 1201 (creating a committee to study incentives for regionalization of sludge and septage facilities) will meet on:

Thursday, June 22, 2000
Room 303 LOB
1:00 p.m.

(This replaces the meeting originally scheduled for June 21st.)

DRP/sg
cc: Subcommittee Members: Rep. Harmon, Rep. Melcher, Rep. Babson, Rep. Owen
All Other Environment and Agriculture Committee Members

House Committee on Environment & Agriculture

Interim Study of
HB 1201
Creating a committee to study incentives for regionalization of sludge and septage facilities

Meeting Notes
July 18, 2000

Present: George Neill, Dick Flanders, Betsy Patten, Derek Owen, Joel Anderson, Darlene Johnson, Henry Vailleux, Hal Melcher, and Leighton Pratt

Haw___ (Maine)
Paper Company (Vermont)

Rep. Babson: Why is there no Sludge Quality Certificate application from Lowell, MA?

24% of NH septage goes out of state.
Concord – over 40 towns use facilities
Plymouth – 23 towns use facilities

Lowell-
Lawrence – Greater Lawrence

50 towns have not complied with the septage laws

Rep. Patten: Suggested Reps. Of the delinquent towns be informed of neglect.

Rep. Owen: Moved that the DES compose a letter to delinquent town representatives that their towns are not in compliance with RSA 485-A: 5 (B)

A discussion of capacity followed.

Rep. Owen: Questioned DES about the Task Force's remark of regionalizing septage plants.

1947 – NH Clean Water Act
1976 – Federal Clean Water Act

RESULTS: Letter from the DES
Joel will check with Rep. George Musler about using E&A letterhead

2:20 PM Meeting Adjourned.

HB
1201

7/18 Sludge - Regional Type

Sub committee -

Hawkridge - Me.
Paper Company in Vt.

George Neill
Dick Flanders
Betsy Potter
Deb Owen
Joel Anderson
Darlene Johnson
Henry - Vaillent
Hal - Melcher
Rep. Leighton
Pratt -

Rep. Babson (Babson) - Why no Certification (SQC) Sludge Quality applies Lowell MA

24% of NH septage goes out of state.

Concord - over 40 towns use facilities
Plymouth - 23 towns - used "

Lowell -
Laurence - Hunter Laurence

50 towns have not complied with the septage laws.

Rep P. Beaty suggested Reps of delinquent towns be informed of neglect.

Moved ~~that~~ DES compose a letter to Rep Owen ~~485:A:5 B~~ delinquent towns' reps that Sec Rieth: there town is not in compliance with RSA 485:A:5 (B)

A discussion of capacity followed.

Rep Owen questioned DES about the task force's remark of not [redacted] analyzing septage plants.

1947 - NH Clean Water Act.
1976 - Federal Clean Water Act.

Result - letter from DES
Joel - Will check with Hengel about using E+A letterhead.

2:20 P.M. adjourn.

State of New Hampshire

HOUSE OF REPRESENTATIVES

CONCORD

MEMORANDUM

TO: Interim Study Subcommittee on HB 1201
(Reps. Harmon, Melcher, Babson, Owen, Pratt)

FROM: Rep. Donald R. Philbrick, Subcommittee Chair

DATE: August 25, 2000

RE: Subcommittee Work Session

A subcommittee work session on HB 1201 (creating a committee to study incentives for regionalization of sludge and septage facilities) has been scheduled for:

Thursday, September 14, 2000
1:30 p.m.
Room 303 (LOB)

The purpose of the meeting will be to discuss proposed legislation for the upcoming session.

Mailed
8/28/00

DRP/sg
cc: Rep. Betty B. Hall
Richard Flanders, Department of Environmental Services

Speakers

SIGN UP SHEET

To Register Opinion If Not Speaking

Bill # HB 1201 Date

Committee E + A

**** Please Print All Information ****

Name	Address	Phone	Representing	(check one) Pro	Con

Hearing Minutes

HOUSE COMMITTEE ON ENVIRONMENT AND AGRICULTURE

PUBLIC HEARING ON HB 1201

BILL TITLE: creating a committee to study incentives for regionalization of sludge and septage facilities.

DATE: Janaury 19, 2000

LOB ROOM: 303 **Time Public Hearing Called to Order:** 11:20 am

Time Adjourned: 11:50 am

(please circle if present)

Committee Members: Reps. Musler, Leishman, Messier, L. Pratt, McRae, Philbrick, Babson, Phinney, Marshall, Dunlap, Franks, Scanlan, Cobb, Harmon, B. Hall, Owen, Melcher, Meader, M. Ouellette, Phinizy, Shelton and Tuthill.

Bill Sponsors: Rep. Patten

TESTIMONY

* Use asterisk if written testimony and/or amendments are submitted.

✳ **Rep. Betsey Patten**: sponsor supports his bill, regionalization needed, study committee requested.

Rep. Messier: Any other states with this program?

Rep. Patten: Do not know

Judy Silva: NHMA, supports this bill

✳ **Dick Flanders**: DES, supports this bill, letter from department, two disposal options, lagoon facilities, 503 XXXX and reg. Requirement ratching up, 8 month task force looking at issue.

Rep. Hall: What's the number of Class B sludge generated?

Rep. Patten: Don't have the breakdown, will get quality of NH class B.

Rep. Messier: The difference between states on how regulated

Copy of 1998 test report.

Henry Veilleux: supports the bill

Shelagh Connelly: supports this bill, link between septage and biosolids, the problem of disposal of residential septage and capacity, many pieces to this puzzle, encourage access to innovative technologies and to low interest loans, look for long term solutions.

This bill was assigned to the Sludge sub committee.

Respectfully submitted,

Karen K McRae

Rep. Karen McRae, Clerk

HOUSE COMMITTEE ON ENVIRONMENT AND AGRICULTURE

PUBLIC HEARING ON HB 1201

BILL TITLE: **creating a committee to study incentives for regionalization of sludge and septage facilities.**

DATE: 1-19-2000

LOB ROOM: 303 **Time Public Hearing Called to Order:** 11:20

Time Adjourned: 11:50

(please circle if present)

Committee Members: Reps. Musler, Leishman, Messier, L. Pratt, McRae, Philbrick, Babson, Phinney, Marshall, Dunlap, Franks, Scanlan, Cobb, Harmon, B. Hall, Owen, Melcher, Meader, M. Ouellette, Phinizy, Shelton and Tuthill.

Bill Sponsors: Rep. Patten

TESTIMONY

* Use asterisk if written testimony and/or amendments are submitted.

* Rep. Betsey Patten, sponsor, support, regionalization needed, study committee requested

? by committee

Messier - * any other states with this program — ans. Do not know

Judy Silva - Municipal Assoc. support

* Dick Flanders, support, DES, letter from department

2 disposal options - lagoon facilities - 503's & reg requirements catching up - 8 mo task force looking at issue

? by the committee

Babson -

Hall - # of class B sludge generated ans don't have breakdown - will get quality of NH class B?

Messier - * ans. difference between states on how regulated

Copy of 1998 test report

Henry Veillemx, support

Shelagh Connelly, support, link between septage &

biosolids – problem of disposal of residential septage and capacity – many pieces to this puzzle – encourage access to innovative technologies and to low interest loans – look for long term solutions

Sludge Sub-Committee

Testimony

State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES
6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095
(603) 271-3503 FAX (603) 271-2982

January 19, 2000

The Honorable George T. Musler, Chairman
Environment and Agriculture Committee
Legislative Office Building, Rm 303
Concord, NH 03301

Re: HB 1201 creating a committee to study incentives for regionalization of sludge and septage facilities

Dear Chairman Musler:

Thank you for the opportunity to testify on HB 1201 which would establish a legislative committee to study current sludge and septage disposal practices and to investigate incentives for regionalization of treatment facilities. The Department of Environmental Services (DES) supports this bill.

The Department notes that the production of sludge from publicly owned wastewater treatment facilities (POTWs) has grown from virtually none before 1931 (when the first POTW was constructed in New London) to over 40 million pounds in 1999 due to the construction and operation of over 80 POTWs, as well as the rapid population increase during this period. The two primary options for sludge disposal are landfilling and incineration, while the reuse option involves land application for agricultural, landscaping, or silvicultural purposes. Currently, there are 17 POTWs that have active land application programs via compost production and distribution, or as Class B biosolids directly land applied to farms and other sites. A number of other POTWs such as those with lagoons must also dispose of sludge periodically. The cost of sludge handling and disposal/reuse is increasing significantly due to regulatory controls imposed by the federal government and DES, as well as limitations on available solutions. This is especially true for smaller POTWs that cannot cost effectively manage their own sludge and increasingly rely on larger regional facilities, if available.

The proper disposal of domestic septage is also becoming a significant issue. Pursuant to RSA 485A:5-b, "Each municipality shall either provide, or assure access to, a (DES) approved septage facility for its residents for a minimum of a 5 year period." A recent DES survey of municipal septage disposal practices found that over 82 million gallons was being pumped from septic tanks annually, and most septage was disposed at POTWs within the community or at another POTW nearby. About 24% of the septage is disposed at out-of-state POTWs. As septage disposal capacity at POTWs decreases due, in part, to increasing sewage treatment demands from an expanding population, the increasing reliance on existing POTWs to handle septage is at risk. The other solutions include septage lagoons (municipal and private) and land application sites. Regulatory pressure to bring lagoons into compliance with groundwater monitoring requirements, as well as siting issues (such as neighbor opposition) to locate new ones, has resulted in a rapid decline in such facilities. There are fewer disposal solutions

statewide and yet since most new housing starts rely on subsurface disposal, there is increasing reliance on septic systems which generate even more septage to be disposed every 3-5 years. Since most septage ends up at POTWs, the treatment process creates even more sludge for ultimate disposal.

DES supports the proposed bill because it will create a study committee to investigate incentives for regionalization of sludge and septage facilities. This should promote cost savings to municipalities, encourage recycling and reuse options, and reduce environmental impacts as a result of better management. The Department will be happy to offer technical assistance to this committee in its deliberations.

If you have any questions, please contact me at 271-3503 or Richard Flanders at 271-3571.

Sincerely,

Robert W. Varney
Commissioner

cc: Representative Betsey Patten

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Submitted by Rep. Betsey Patten 1-19-2000 HB 1201

SUMMARY OF RSA 485-A:5-b
TOWN RESPONSIBILITY TO PROVIDE FOR SEPTAGE
NOVEMBER 4, 1999 UPDATE

City/Town	Return of Survey	WWTF		Lagoon		Land App.	Written Agree-ment	Other Verified Solution	Comments/ Solutions
		Own	Other Town	Own	Other Town				
Acworth									**No Response**
Albany	X		X				X		N. Conway WWTF
Alexandria	X		X						Franklin WWTF
Allenstown	*X*		*X*						*Hauler's problem*
Alstead									**No Response**
Alton	X			X					Town Lagoon
Amherst	*X*		*X*		*X*				*No specifics*
Andover	X		X						Franklin WWTF
Antrim	X	X							Antrim WWTF
Ashland	X		X				X		Plymouth WWTF
Atkinson	X		X					X	GLSD accepts
Auburn	X		X					X	Manchester WWTF accepts
Barnstead	*X*								*Hauler's problem*
Barrington	X			X			X		Dover WWTF
Bartlett	X		X						N. Conway WWTF
Bath	*X*		*X*						*No specifics*
Bedford								X	Manchester WWTF accepts
Belmont							X		Franklin WWTF

Bennington	X		X						Antrim WWTF- 22% ownership
Benton									**No Response**
Berlin	X	X							Berlin WWTF
Bethlehem	X		X		X			X	Littleton WWTF accepts
Boscawen	X		X						Concord WWTF
Bow	X		X				X		Concord WWTF- 4% capacity limit
Bradford	*X*		*X*						*No specifics*
Brentwood	X		X				X		Hampton WWTF
Bridgewater	X		X						Franklin WWTF
Bristol	X		X				X		Plymouth WWTF accepts
Brookfield	X				X				Wakefield lagoon
Brookline									**No Response**
Campton	X		X				X		Plymouth WWTF accepts
Canaan	X		X	X		X	X	X	Plymouth WWTF Lebanon accepts
Candia	X		X					X	Manchester WWTF accepts
Canterbury									**No Response**
Carroll									**No Response**
Center Harbor	X		X				X X		Plymouth WWTF Franklin WWTF
Charlestown	X	X							Charlestown WWTF
Chatham	X		X				X		Fryeburg, Me. accepts

Chester								X	GLSD accepts
Chesterfield									**No Response**
Chichester	*X*								*Hauler's problem*
Claremont	X	X							Claremont WWTF
Clarksville	X				X		X		Pittsburg lagoon
Colebrook	X	X							Colebrook WWTF
Columbia	X				X		verbal		Stewartstown lagoon
Concord	X	X							Concord WWTF
Conway	X	X							N. Conway WWTF
Cornish	X		X				X		Claremont WWTF
Croydon									**No Response**
Dalton	X		X					X	Lunenburg, Vt Littleton WWTF accepts
Danbury	X		X				X		Plymouth WWTF
Danville							X	X	Hampton WWTF GLSD accepts
Deerfield	*X*								*No specifics*
Deering	X		X				X		Weare/All Clear private septage treatment facility
Derry	X		X					X	GLSD accepts
Dorchester	*X*								*No specifics*
Dover	X	X							Dover WWTF
Dublin	*X*								*No specifics*
Dummer	*X*		*X*						*No specifics*
Dunbarton	X		X						Concord WWTF

Durham	X	X							Durham WWTF
E. Kingston	X				X		X		Bodwell private lagoon/treatment-5 year agreement
Easton	X		X					X	Littleton WWTF accepts
Eaton	X		X				X		N. Conway WWTF
Effingham	*X*								*No specifics*
Ellsworth	X		X				X		Plymouth WWTF
Enfield	X		X				X		Lebanon WWTF
Epping	X	X							Epping WWTF
Epsom	*X*								*Hauler's problem*
Errol	X		X				X		Berlin WWTF
Exeter	X		X				X		Hampton WWTF
Farmington	X			X					Town Lagoon
Fitzwilliam	X								Seeking agreement with Keene
Francestown	X		X				X		Tory Pines-private septage treatment facility
Franconia	X		X					X	Littleton WWTF accepts
Franklin	X	X							Franklin WWTF
Freedom	X		X				X		N. Conway WWTF
Fremont	X						X	X	Hampton WWTF GLSD accepts
Gilford	X		X				X		Franklin WWTF
Gilmanton	X		X		X				Franklin WWTF Gosse lagoon

Gilsum									**No Response**
Goffstown	X		X				X		Manchester WWTF
Gorham	X	X							Gorham WWTF
Goshen									**No Response**
Grafton	X		X				X		Plymouth WWTF
Grantham	X		X					X	Lebanon WWTF accepts
Greenfield	*X*								*No specifics*
Greenland	X		X				X		Newington WWTF
Greenville	X	X							Greenville WWTF
Groton	X		X				X		Plymouth WWTF
Hampstead								X	GLSD accepts
Hampton	X	X							Hampton WWTF
Hampton Falls	X		X				X		Hampton WWTF
Hancock	*X*								*Hauler's problem*
Hanover	X	X						X	Hanover WWTF Lebanon WWTF accepts
Harrisville									**No Response**
Harts Location	X		X				X		N. Conway WWTF
Haverhill	X	X			X				Woodsville WWTF* Boudreault lagoon
Hebron	X		X				X		Plymouth WWTF
Henniker	X	X							Henniker WWTF
Hill	X		X				X		Plymouth WWTF
Hillsboro	X	X							Hillsboro WWTF

Hinsdale	X	X							Hinsdale WWTF*
Holderness	X		X				X		Plymouth WWTF
Hollis	X								Seeking solution
Hooksett									**No Response**
Hopkinton	X			X					Town Lagoon
Hudson	X		X				X	X	Nashua WWTF GLSD accepts
Jackson	X		X						N. Conway WWTF
Jaffrey									**No Response**
Jefferson	X		X				X	X	Berlin WWTF Littleton WWTF accepts
Keene	X	X							Keene WWTF
Kensington							X		Hampton WWTF
Kingston								X	GLSD accepts
Laconia	X		X				X		Franklin WWTF
Lancaster	X	X						X	Lancaster WWTF* Littleton WWTF
Landaff									**No Response**
Langdon	X		X				X		Claremont WWTF
Lebanon	X	X							Lebanon WWTF
Lee							X		Dover WWTF
Lempster									**No Response**
Lincoln	X	X							Lincoln WWTF
Lisbon	X		X		X			X	Littleton WWTF accepts Schofield private septage facility

Litchfield								X	GLSD accepts
Littleton	X	X							Littleton WWTF
Londonderry	X		X					X X	Manchester WWTF accepts GLSD accepts
Loudon	X			X					Town Lagoon
Lyman								X	Littleton WWTF accepts
Lyme	X		X				X		Hanover WWTF
Lyndeborough									**No Response**
Madbury	X						X		Dover WWTF
Madison	X		X				X		N. Conway WWTF
Manchester	X	X							Manchester WWTF
Marlborough	X		X				X		Keene WWTF
Marlow	*X*								*No specifics*
Mason	X		X				X		Greenville WWTF
Meredith	X		X				X X		Franklin WWTF Plymouth WWTF
Merrimack	X	X							Merrimack WWTF
Middleton	*X*								*No specifics*
Milan	*X*								*Hauler's problem*
Milford	X	X							Milford WWTF
Milton	X			X					Town Lagoon
Monroe	*X*								*No specifics*
Mont Vernon									**No Response**
Moultonboro	X		X				X X		Franklin WWTF Plymouth WWTF

Nashua	X	X							Nashua WWTF
Nelson									**No Response**
New Boston	X		X				X		Weare/All Clear Private Septage Treatment Facility
Newbury	X		X				X		Lebanon WWTF
New Castle	X		X				X		Portsmouth WWTF
New Durham	X			X					Town Lagoon
New Hampton	X		X				X		Plymouth WWTF
New Ipswich	X		X				X		Greenville WWTF
New London								X	Lebanon WWTF accepts
Newfields									**No Response**
Newington	X	X							Newington WWTF
Newmarket	X	X							Newmarket WWTF
Newport	X	X							Newport WWTF
Newton	X		X					X	GLSD accepts
North Hampton	X		X				X		Hampton WWTF
Northfield	X		X				X		Franklin WWTF
Northumber-land	X	X							Northumberland WWTF*
Northwood	X			X					Town Lagoon
Nottingham	X		X				X		Somersworth WWTF
Orange	X		X					X	Lebanon WWTF accepts?
Orford	*X*		*X*						*No specifics*
Ossipee	X			X					Town Lagoon

Pelham								X	GLSD accepts
Pembroke	*X*		*X*						*No specifics*
Peterborough	X	X							Peterborough WWTF
Piermont	X		X				X		Plymouth WWTF
Pittsburg	X			X					Town Lagoon
Pittsfield	X	X							Pittsfield WWTF
Plainfield								X	Lebanon WWTF accepts
Plaistow	X		X					X	GLSD accepts
Plymouth	X	X							Plymouth WWTF
Portsmouth	X	X							Portsmouth WWTF
Randolph	*X*							*X*	*Hauler's problem* Littleton WWTF accepts
Raymond	X		X				X	X	Hampton WWTF GLSD accepts
Richmond	*X*								*Hauler's problem*
Rindge	*X*				*X*				*Private lagoons*
Rochester	X	X							Rochester WWTF
Rollinsford	X		X				X		Dover WWTF Somersworth WWTF
Roxbury	X		X						Keene WWTF
Rumney	X		X				X		Plymouth WWTF
Rye	X		X				X		Hampton WWTF
Salem	X		X				X		GLSD WWTF
Salisbury	X		X						Franklin WWTF

Sanbornton	X		X				X X		Franklin WWTF Plymouth WWTF
Sandown	X		X				X	X	Hampton WWTF GLSD accepts
Sandwich	*X*	*X*			*X*				*Sandwich WWTF** *Private lagoon*
Seabrook	X	X					X		Seabrook WWTF Hampton WWTF
Sharon									**No Response**
Shelburne			X				X		Gorham WWTF
Somersworth		X							Somersworth WWTF
S. Hampton	X		X				X		Hampton WWTF
Springfield	X		X				X		Claremont WWTF
Stark	X		X						Berlin WWTF
Stewartstown	X		X	X			X		Canaan, Vt WWTF
Stoddard	*X*								*Hauler's problem*
Strafford	*X*								*Hauler's problem*
Stratford	X			X					Town Lagoon
Stratham	X		X				X		Hampton WWTF
Sugar Hill								X	Littleton WWTF accepts
Sullivan									**No Response**
Sunapee	X	X				X	 X		Sunapee WWTF* Abbott site Lebanon WWTF
Surry									**No Response**
Sutton	X			X					Town Lagoon
Swanzey	X		X						Keene WWTF

Tamworth									**No Response**
Temple							X		Greenville WWTF
Thornton	X		X				X		Plymouth WWTF
Tilton	X		X				X		Franklin WWTF
Troy									**No Response**
Tuftonboro	X			X					Town Lagoon
Unity	X		X						Claremont WWTF
Wakefield	X			X					Town Lagoon
Walpole	X		X				X		Bellows Falls WWTF
Warner	X		X						Concord WWTF
Warren	X		X				X		Plymouth WWTF
Washington	X		X				X		Weare/All Clear Private Septage Treatment Facility
Waterville Valley	X	X							Waterville Valley WWTF
Weare	X		X						Weare/All Clear Private Septage Treatment Facility
Webster	X				X				Town Lagoon in Hopkinton
Wentworth	X		X				X		Plymouth WWTF
Westmoreland									**No response**
Whitefield	X		X					X	Littleton WWTF accepts
Wilmot									**No response**
Wilton							X		Milford WWTF

Winchester	X		X						Winchester WWTF* Keene WWTF
Windham	X		X					X	GLSD accepts
Windsor	X		X					X	Hillsboro WWTF accepts
Wolfeboro	X	X							Wolfeboro WWTF
Woodstock	X	X	X				X		Lincoln WWTF Plymouth WWTF
234 **Totals**	**190**	**44**	**108**	**16**	**12**	**2**	**80**	**37**	
%	**81.2**	**(-7)**							

NOTE: GLSD - Greater Lawrence Sanitary District
WWTF - Wastewater Treatment Facility
* - No septage received or accepted in 1998

SUMMARY
Solutions:

WWTFs:	Within town	44-7	35
	Other towns or states		108
Lagoons:	Within town		16
	Other (private)		12
Land Application Sites:			2
	Total		173

or 91.5% of towns responding to the surveys claimed a septage disposal solution

No Response	26 towns
No response but solution verified	15 towns
Response to survey(s)	190 towns
Total	231 towns & cities of 234

"Hauler's Problem"	9 towns
No specifics provided	14 towns
"Private Lagoon" as solution	2 towns
Total	25 towns or 13%

h:\septage\taskfoce\townsol.wpd

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

HISTORY OF SEPTAGE REGULATION IN NEW HAMPSHIRE
5/7/99

Submitted by Rep. Bettey Patten 1-19-2000 HB 1201

Background

In the beginning, there was no septage. Septic systems and wastewater treatment facilities are relatively new sanitary conveniences. Back in the 30's, most people lived on rural farms or small villages where outhouses were the norm, or, with luck, indoor plumbing with a flush toilet whose effluent ran either into a cesspool or perhaps an open ditch away from the farmhouse. In general, the only maintenance to the outhouse was occasional cleaning - removal of the 'night soil' to be applied to the raspberry patch.

As population increased, there was growing recognition of the health impact of unsanitary disposal practices. The first wastewater treatment plant in New Hampshire was constructed in New London in 1931, and was closely followed by plants in Durham, Keene, Hampton, Ossipee , Claremont and Wolfeboro. These were primary treatment facilities which provided little more than physical settling of solids and limited wastewater treatment per se. As a result of increasing pollution of the state's surface waters, the legislature enacted the New Hampshire Water Pollution Control Act in 1947 which authorized the creation of the Water Pollution Commission and set in motion pollution abatement measures, including orders to communities to eliminate raw, untreated discharges to surface waters.

With the benefit of 40% state and 55% federal grants, there was a rush to build wastewater plants at the low local cost of only 5%. By 1965 there were 26 treatment plants, including nine secondary facilities capable of biological treatment of wastewater. Between 1965 and 1973, 21 additional plants went on-line. In 1972, the Clean Water Act (CWA) was passed by Congress, which provided up to 75% federal grants, but only provided funds for construction of secondary facilities. An additional 39 plants were built or upgraded between 1973 and 1990 when the federal Construction Grants Program ended. This was replaced with the State Revolving Loan Fund Program in 1990 which is still active. In addition, there is a 20-30% state aid grant program which helps reduce a community's debt burden. As a result of this local, state, and federal investment in clean water, there are over 90 publicly owned treatment works (POTWs) in operation.

Septage Hauling - A New Industry

As POTWs were being constructed, there was a concomitant expansion of sewers to intercept raw discharges and to serve new subdivisions and individual homes and farms. Yet even with the expansion of this infrastructure, about 50% of the state's population continues to rely on septic systems, and for older homes and seasonal camps, cesspools. This burgeoning reliance on septic systems created a whole industry, since septic tanks must be pumped out periodically. The pumping out of solids that accumulates in septic tanks (septage) and hauling it away is a service industry that didn't exist 40 years ago. Septage haulers driving their 'honey

wagons' found they had an immediate and ongoing headache - where to dispose of the pumpings. Fortunately, many haulers were able to bring the septage to POTWs, although with primary plants this often meant discharge to surface waters with little treatment. Some of the septage was land spread. In fact, there is still a land spreading site in the Town of Sunapee that has been continuously land applying septage on an old field for over 30 years! Several towns provided septage lagoons (or holes dug in the ground) at the local town dump. Many other towns left it up to the septage haulers to find a home for the stuff. The first survey of septage disposal practices in 1979[1] found that most septage was going to in-state POTWs, and an equal amount to out-of-state POTWs and land based solutions (see Figure 1). There were 59 land disposal sites and 34 POTWs that accepted septage. As of 1978, there were 119 licensed septage haulers who handled between 19 and 54 million gallons of septage annually.

POTW operators often found that septage interfered with their treatment processes since it is much stronger that sewage. It is anaerobic, foul smelling, increased the quantity of sludge to be disposed, and was not easily blended into the wastewater stream. Many POTWs banned septage outright while others increased tipping fees or set limited hours to discourage its arrival. This put the septage haulers in the middle. They were trying to provide a service at a reasonable pumpout fee, since homeowners often deferred maintenance if costs were too high. Some POTWs look at tipping fees as significant revenue, but recognize that their ability to handle increasing amounts is limited by their facilities' overall design capacity. Over the past 20 years, septage disposal has become a municipal headache as well as a hauler problem.

Regulatory History of Septage

The State Legislature recognized in the 1940s that water resources were not inexhaustible. indiscriminate use of the state's rivers and streams as open sewers result in deterioration of water quality and eliminates some of the uses we now take for granted, such as swimming and fishing. RSA 149 was passed in 1947 and established the state framework for regulating discharges to surface waters for the protection of public health and the environment. Later in 1955, the Legislature enacted RSA 147 which empowered the Department of Public Health to address growing concerns relating to the disposal of solid wastes. This act mandated that communities provide 'public dumping facilities': 'Each *town or city shall provide and maintain public dumping facilities for the depositing of garbage and refuse* ...' In 1971, RSA 147 was amended with reference made to providing 'public *disposal facilities for the depositing of garbage, refuse, manure and putressible materials.*' The statutory definition for putressible material means 'any human excrement and putrescible material'. Clearly, the Legislature intended to put the onus on municipalities to address the proper disposal of septage as part of their solid waste disposal responsibilities, even though the initial reference was to refuse and putressible material. Many towns responded by establishing town owned septage dumping sites, often lagoons or trenches at their open burning dumps. Others relied on their POTWs to meet this requirement. Unfortunately, some towns ignored this law and have to this day, arguing that it is the septage haulers responsibility, not the town's, to find a home for this waste. The septage haulers, already licensed and regulated by the state, have been reluctant to carry the full burden.

In 1971, the Department of Public Health's entire solid waste effort was embodied in one employee who handled all 234 towns, their solid waste problems, and all solid waste and septage

complaints. Eventually more staff was added and a Solid Waste Bureau created. All septage haulers were licensed and all septage sites approved. The Water Supply & Pollution Control Commission (WS&PCC - the former Water Pollution Commission) became involved in septage issues as a result of provisions of the Clean Water Act (CWA) in 1972. Section 208 of the CWA provided funds to states to address nonpoint pollution problems. In 1979 a new federal initiative under CFR 257 was implemented called the **Criteria for Classification of Solid Waste Disposal Facilities and Practices**, which established minimum requirements for sludge disposal. A report was prepared in 1980[2] relative to the impact of leachate from lagooned septage (and sludges) and recommended increased state management, development of detailed written guidelines addressing all acceptable practices and minimum state requirements. These were issued in 1981[3]. Emphasis was placed on encouraging environmentally sound, economical and safe practices. The report noted that the state felt strongly that land utilization rather than disposal options be encouraged since waste concentration in lagoons or landfills greatly increases the risks of groundwater and surface water pollution.

The 1980 report also noted that both WS&PCC and the Bureau of Solid Waste Management (BSWM) had separate legislative mandates regarding septage (and sludge). WSPCC focused on operational controls in the processing of sludge and septage at the regulated POTWs and was concerned about water pollution due to leachate or runoff under RSA 149. However the BSWM was also responsible under RSA 147 to address the impacts of sludge and septage as solid waste, regulated the septage haulers, and approved all land disposal sites. Staff in both agencies coordinated sludge and septage permitting, did joint site inspections, and inspected septage facilities for sanitary conditions.

In 1982, the Legislature approved comprehensive changes in solid waste regulation under new authority in RSA 149M, requiring solid waste districts with the intent that communities work cooperatively to solve their solid waste problems. Planning for septage disposal by the districts was included.

Also beginning in 1982, the Nonpoint Source Program provided funds to the nine regional planning agencies to assess septage disposal issues. Phase I studies required an inventory of existing septage hauling and disposal practices. These studies were completed between 1982 and 1987 at a cost of $91,500[4]. In 1987, two planning regions were also funded ($19,500) to identify septage disposal solutions in areas with limited options (Phase II studies). In 1988, DES published a summary of these studies[5].

In 1987, the Legislature created the Department of Environmental Services (DES) which consolidated Air, Solid Waste, Water Resources, and WSPCC efforts. The regulatory basis was unchanged, with septage controlled under RSA 149M authority. In 1989, a detailed assessment of the septage and sludge management programs at DES was developed[6] under the nonpoint source control program. The report documented existing practices and estimated current septage (and sludge) quantities being generated in New Hampshire. Also noted was a significant shift at the federal level with a change in managing septage (and sludge) under the CWA rather than under the Resource conservation and Recovery Act, which was also passed in 1972. The report findings are summarized as follows:

- Septage generation (volume pumped) is increasing
- Septage is becoming increasingly difficult to dispose

-Septage lagoons are being phased out
-Landfills are being closed
-POTWs are reaching design capacity
-Siting new facilities facing opposition -NIMBY issue

- Septage management is an orphan child of solid waste management programs
  -There are no dedicated resources for the program
  -Defined as solid waste in current rules
  -Program is fragmented
  -No accurate record keeping
  -No monitoring of activities
  -No enforceable permits

There were several recommendations:

- Transfer responsibilities to the Water Supply and Pollution Control Division of DES to develop a sludge/septage program in conformance with federal changes
- Enact changes to laws to:
  -Remove septage regulation from Solid Waste Rules
  -Give WSPCD authority to develop rules, take enforcement, and assess fees
  -Shift enforcement of municipal responsibility for septage to WSPCD and require 5 year solution
- Develop a comprehensive septage/sludge program including the following elements:
  -Rule development
  -Enforceable Permit Program
  -Inspection Program
  -Compliance Program

As a result of the 1989 report recommendations, the Legislature passed HB 1405 in 1990 which transferred the Septage and Sludge Program from the Solid Waste Division to the Water Supply &Pollution Control Division (WSPCD) of DES under RSA 485 authority and deleted reference to septage and sludge in RSA 149M. RSA 485 was amended to give WSPCD the authority to regulate the removal, transportation, and disposal of septage and sludge through the administration of a permit system under the federal authority of National Pollutant Discharge Elimination System (NPDES) permits. The municipal responsibility language was also transferred and modified to read: "*Each municipality shall either provide, or assure access to, a division of water supply and pollution control approved septage facility for its residents for a minimum of a 5 year period.*" Compliance provisions were also spelled out. The legislation also provided funds for two positions to manage the septage and sludge program, and a position on the WSPCD appeals Council to allow representation from the septage haulers. (Interestingly, with the transfer of authority to WSPCD, any sludge or septage disposed within a permitted solid waste facility is still regulated by the Waste Management Division.)

In 1989 the Legislature approved changes via RSA 486:13 which increased the state's responsibilities to assure that new POTWs constructed after 1989 were designed to accept septage and added: "*municipalities shall not be required to receive and treat septage in such amount or at such times as would interfere with the proper operation of municipal treatment and*

disposal facilities." (see full language attached)

Since 1990, the WSPCD (now Water Division) initially established a single position to oversee the new Sludge and Septage Program. The Sludge Coordinator developed new rules under Env Ws 800 which encouraged beneficial reuse of septage and sludge. At the federal level, EPA published the '503 rules' (section 503 of the CWA) effective March of 1993. These included minimum requirements for sludge and septage. In response, and to avoid duplication of permits and to better focus limited resources on technical assistance, DES amended its Sludge and Septage Management Rules in August 1993 and deferred to EPA for regulating the use and disposal of sludge. WSPCD retained authority over septage, and continued the regulation of septage haulers, as well as site approvals for septage disposal. In addition, the Groundwater Protection Bureau of WSPCD retains authority to issue groundwater permits for septage lagoons. Due to public uproar resulting from the perception that DES gave up too much oversight to EPA, emergency rules were reestablished in 1995 focused on sludge problems and to control the importation of out-of-state sludge. Several additional rounds of rulemaking ensued. In response to concerns raised by the New Hampshire Association of Septage Haulers, it was decided that septage regulation be separated from the Env 800 rules. As a result, new septage rules under Env-Ws-1600 were developed and will be in effect in late April 1999.

In 1998 there were 52 land disposal sites and 40 POTWs in NH that accept septage, in addition to 11 out-of-state facilities. There were 126 licensed septage haulers in New Hampshire who pumped over 74 million gallons of septage (see attached summary).

Under proposed reorganization of several Water Division bureaus, the Sludge and Septage Program will be shifted to the Wastewater Engineering Bureau to allow closer liaison with the Operations Section responsible for POTW technical assistance. In addition, an additional position will be added, bringing the total to four DES staff responsible for regulating septage and sludge in New Hampshire.

Summary

The history of septage regulation in New Hampshire is relatively short. The regulatory process has taken a relatively tortuous path over the years, with the creation of dueling authorities that were vested in both Solid Waste and Water Pollution agencies by the Legislature, as well as with shifts in jurisdiction at the federal level. With the consolidation of septage (and sludge) programs within the Water Division at DES, some of the historic duplication of effort as seen by the public has been eliminated. The basic premise has largely been left intact since the 1980's that the state should and does encourage sound environmental practices for the proper handling and disposition of septage. The shift has been slowly away from a disposal mentality to a reuse and recycling mentality, to avoid concentrating septage in lagoons and allow its use as a potential recyclable resource and soil amendment.

Literature Cited

1. Flanders, Richard A., Jr. 1979. Septage Handling and Disposal in New Hampshire. New Hampshire Water Supply and Pollution Control Commission, SR No. 86-n.

2. Flanders, Richard A., Jr. 1980. Leachate Control from Septage and Sludge Facilities in New Hampshire. New Hampshire Water Supply and Pollution Control Commission, SR No. 86-v.

3. Flanders, Richard A., Jr. & Barton Mayer. 1981. Septage Management Guidelines for New Hampshire Communities. New Hampshire Water Supply and Pollution Control Commission & Bureau of Solid Waste Management Misc. Staff Report.

4. Flanders, Richard A., Jr. 1988. Summary of Regional Planning Agency Studies on Septage Problems and Recommendations for Regionalization, DES SR No. 158.

5. a) Lakes Region Planning Commission. 1982. Final Report on Septage Disposal Program, Lakes Region, NH. LRPC, Meredith.

b) Southern Rockingham Planning Commission. 1982. Documentation of Efforts: Regional Septage Disposal Planning in the Southern Rockingham Region. SRPC, Salem.

c) Rockingham Planning Commission. 1985. Septage Management in the Rockingham Planning Commission Area. RPC, Exeter.

d) North Country Council, Inc. 1984. Septage Disposal in the North Country - Regional Summary. NCC, Franconia.

e) _____. 1987. Phase II Septage Planning. NCC, Franconia.

f) Southwest Planning Commission. 1985. Septage Disposal in the Southwest Planning Region of New Hampshire. SWRPC, Keene.

g) Southern New Hampshire Planning Commission. 1987. Septage Management Study for the Southern New Hampshire Planning Subregion. SNHPC, Manchester.

h) Upper Valley Lake Sunapee Council. 1985. Septage Disposal in Washington. UVLSC, Lebanon.

i) _____. 1985. Septage Disposal in Dorchester. UVLSC, Lebanon.

j) _____. 1985. Septage Disposal in Orford. UVLSC, Lebanon.

k) _____. 1985. Septage Disposal in Wilmot. UVLSC, Lebanon.

l) _____. 1985. Septage Disposal in Newbury. UVLSC, Lebanon.

m)_____. 1985. Septage Disposal in the Sullivan County Regional Refuse Disposal District. UVLSC, Lebanon.

n) _____. 1985. Septage Disposal in the Upper Valley Lake Sunapee Region. UVLSC, Lebanon.

o) _____. 1987. Landbased Septage Disposal Options. UVLSC, Lebanon.

p) Nashua Regional Planning Commission. 1986. Septage Management Plan for the Nashua Region. NRPC. Nashua.

q) Central New Hampshire Regional Planning Commission. 1987. Septage Management Plan for the Central New Hampshire Planning Region. CNHRPC, Boscawen.

SRPC, Dover.

6. Flanders, Richard A., Jr. and Virginia M. Grace. 1989. Sludge and Septage Management in New Hampshire: A Report and Action Plan, NHWS&PCD Staff Report No.164.

486:13 Disposal of Septage. To insure the efficient collection and disposal of material pumped from or otherwise removed from septic tanks or other sewage storage facilities, referred to in this section as "septage," the division is authorized and directed to require the installation and operation of a septage reception and treatment facility in conjunction with any pollution abatement project for which state or federal aid is allocated pursuant to the provisions of RSA 486 and PL 92-500 (or subsequent amendments thereto), respectively. The incorporation of septage reception and treatment facilities as provided in this section shall not be applied retroactively but rather shall apply to projects constructed after the effective date of this section. The division is further authorized to review and approve proposed charges to be levied by municipalities for said reception and treatment of septage. The purpose of such review is to assure that the proposed service charges are equitable to all parties concerned and in no case shall municipalities be required to provide service at a financial loss. Additionally, municipalities shall not be required to receive and treat septage in such amount or at such times as would interfere with proper operation of municipal treatment and disposal facilities. Nothing contained in this section shall be construed to limit or modify in any way the authority conferred upon the division of public health services, department of health and human services under the provisions of RSA 147, in connection with public dumping facilities or removal, transportation and disposal of putrescible material.

Source. 1989, 339:1, eff. Jan. 1, 1990.

References in text. PL 92-500, referred to in the first sentence, is classified to 33 U.S.C. § 1251 et seq. and is cited as the Federal Water Pollution Control Act Amendments of 1972.

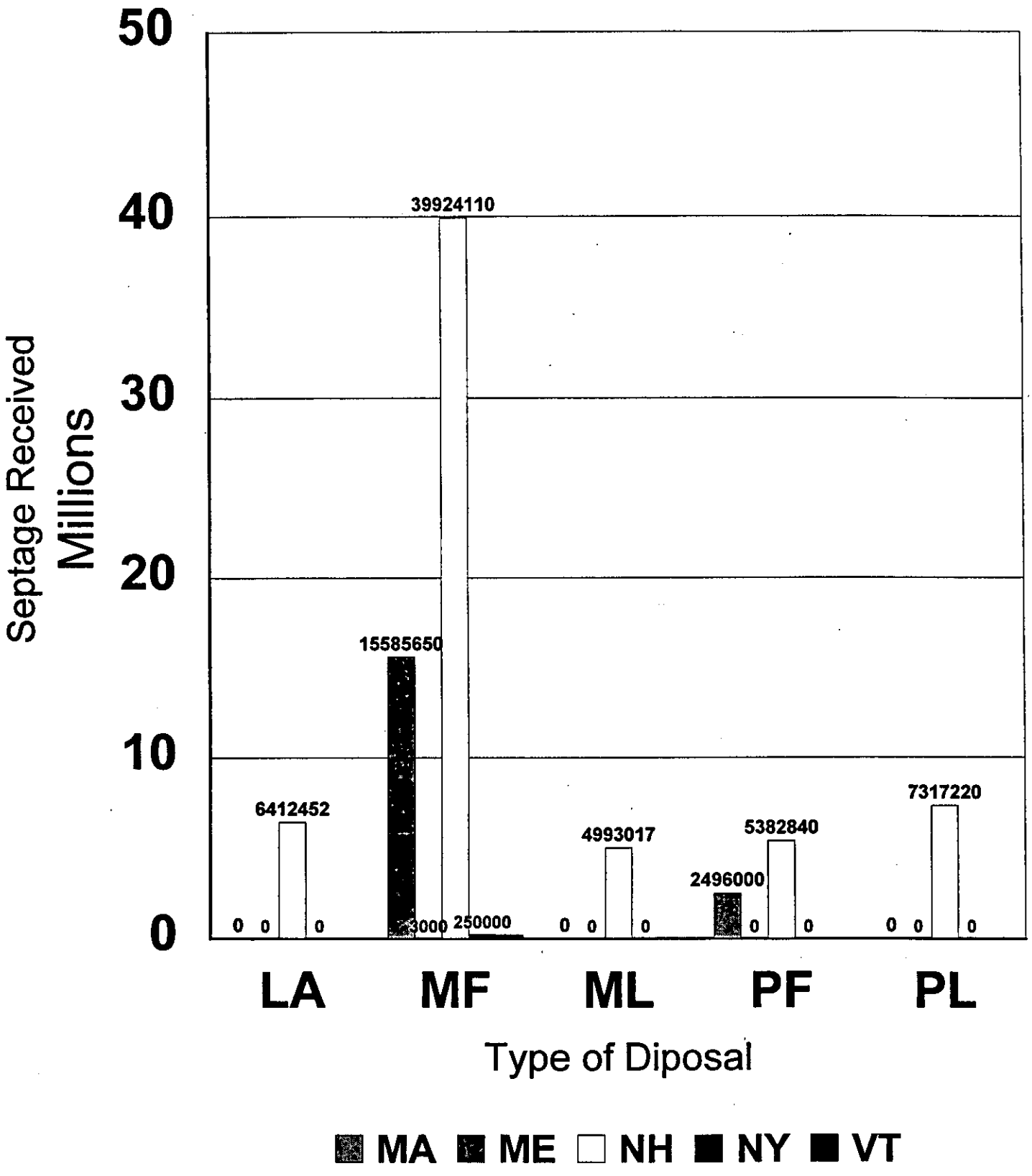
1998 New Hampshire Septage Receiving Sites and Facilities

Disposal Site	State	Type	Sept. Rcvd.	Tip fee1	Note1	Tip fee2	Note2
Canterbury (Hildreth)	NH	LA	416500				
Conway (Naydene Drew)	NH	LA	134650				
Conway (Roger Drew)	NH	LA	194550		20 Acres		
Conway (Deschambeault)	NH	LA	222440		20 Acres		
Groveton (Huckins)	NH	LA	441000				
Hinsdale (Thicket Hill Vil)	NH	LA	86000		Guessing 1000/add.		
Lancaster (Joe Morin)	NH	LA	106700				
Marlow (Guy Ellliott)	NH	LA	74300				
Newton (Ray Nicol)	NH	LA	2654902	confidential	Any Domestic Septage		
Conway (Hussey #38)	NH	LA	727500				
Conway (Hussey #34)	NH	LA	61050				
Northwood (Benson)	NH	LA	52300		Deerfield, Epsom,		and Strafford
Springfield (Dashner)	NH	LA	541750				
Sunapee (Abbott)	NH	LA	144350				
Warren (Newton)	NH	LA	80500				
Wilton (Davidson)	NH	LA	473960				
Antrim WWTF	NH	MF	132500	50/1000	Antrim & Bennington		None
Templton WWTP	MA	MF	500000	35/1000	Any accepted town.		
Bellows Falls WWTF	VT	MF	205000	10/1000	Town & Walpole	12/1000	Outside service area
Berlin PCF	NH	MF	209750	55/1000	Within Berlin	100/1000	Outside Berlin
Charlestown WWTF	NH	MF	170380	60/1000	Charlestown only	N/A	
Claremont WWTF	NH	MF	487350	50/1000	Claremont	70/1000	Goshen Cornish
Colebrook WWT	NH	MF	38000	120/1000	resident/load(1000)	N/A	
Concord WWTF, Hall Street	NH	MF	2079000	60/1000	Within district.	90/1000	Outside district.
Derry WWTF	NH	MF	78800	15/000	Portable toilets		& holdong tanks.
Dover WWTF	NH	MF	267850	50/1000	Dover residents	120/1000	Outside Dover
Durham WWTP	NH	MF	73050	75/1000	Primarily Durham	75/1000	Possible outliers
Fitchburg WWTF	MA	MF	3000000	45/1000	Est. NH septage		
Epping WWTF	NH	MF	1102150	30/1000	Epping	60/1000	Outside Epping
Franklin WWTF (WRBP)	NH	MF	2985270	60/1000	In basin	70/1000	Outside basin
Fryeburg WWTF	ME	MF	3000	80/1000	Chattham, NH		
Glenns Falls WWTF	NY	MF	250000	30/1000	Est. +/- 20000		
Rochester WWTF	NH	MF	406000	56.78/1000	Roch. Gonic, E. Roch	N/A	
Gorham Water & Sewer Dept	NH	MF	162650	55/1000	Gorham	100/1000	Outside Gorham
Greenville WWTF	NH	MF	249450	35/1000	Greenville	75/1000	Outside Greenville
Hampton WWTF	NH	MF	2754700	35/1000	Hampton	55/1000	Outside Hampton
Hanover WWTF	NH	MF	116000	60/1000	Hanover	75/1000	Outside Hanover
Haverhill WWTF	MA	MF	354800	120	For 1 - 2000 gals	180	For 2001 - 3000 gals
Henniker WWTF	NH	MF	241000	50/1000	Henniker only.	N/A	
Hillsborough WWTF	NH	MF	200000	50/1000	Hillsboro & Windsor	N/A	
Jaffrey WWTP	NH	MF	2000	50/1000	Jaffrey only	N/A	
Keene WWTF	NH	MF	400000	75/1000	Within NH	25/1000	holding tanks in NH
Lincoln WWTF	NH	MF	135550	Free	Lincoln	40/1000	Woodstock
Littleton WWTF	NH	MF	400000	100/1000	Sending town list.		
Lowell Regional WWU	MA	MF	2122200		Any accepted towns		
Manchester WWTF	NH	MF	12729000	70/1000	Any accepted towns		
Merrimack WWTF	NH	MF	4500000	50/1000	All accepted towns.	N/A	
Milford WWTF	NH	MF	761690	65/1000	Milford, Wilton	75/1000	Accepted towns.
Nashua WWTF	NH	MF	514470	78.75/1000	Nashua & Hudson		
Newington WWTF	NH	MF	82000	15/1000	Newington	60/1000	Greenland
Newmarket WWTF	NH	MF	20000	50/1000	Newmaket only	N/A	
Newport WWTF	NH	MF	79500	75/1000	Newport only.	37.50/1000	Each added 500 gals.

1998 New Hampshire Septage Receiving Sites and Facilities

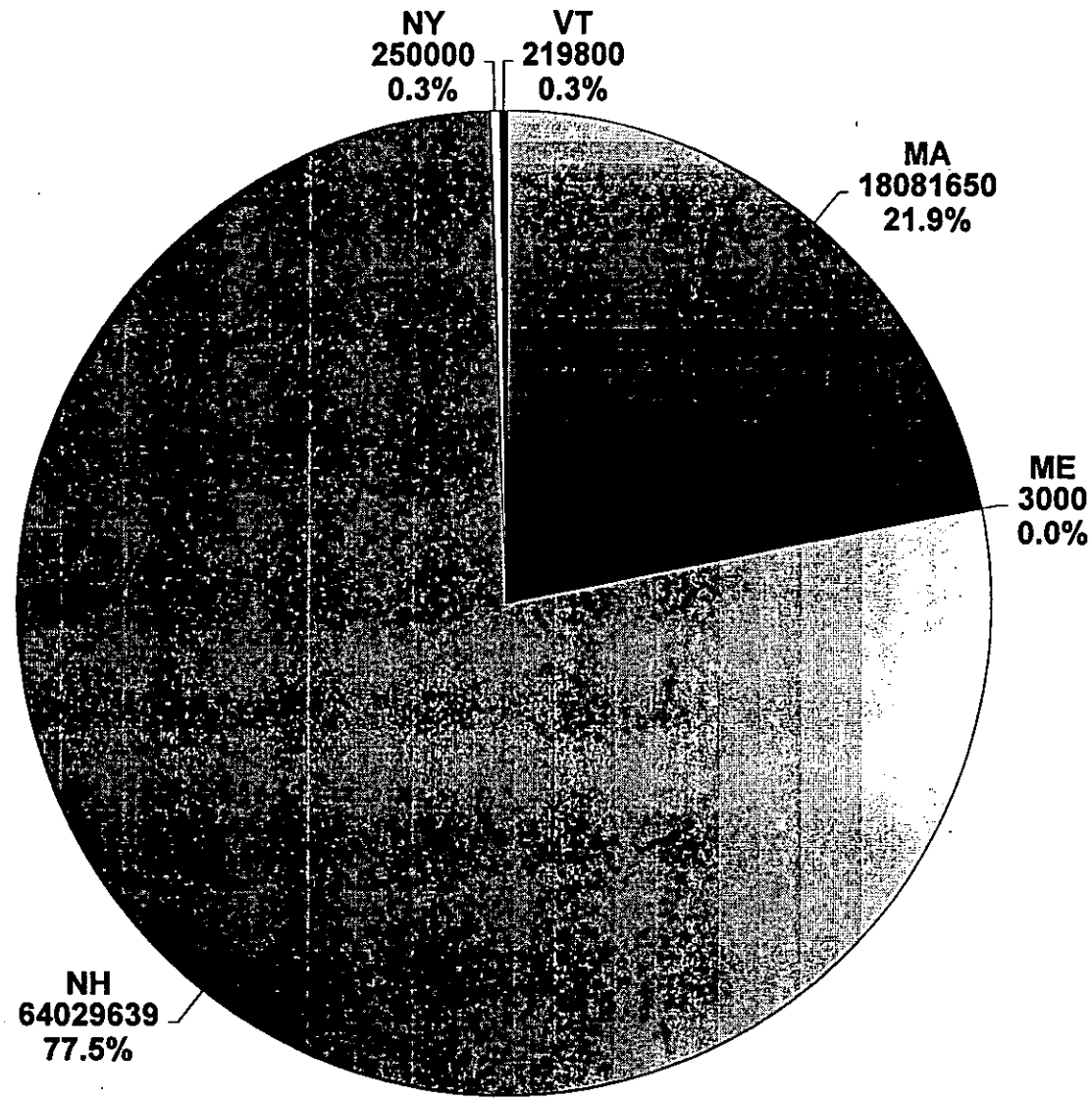
Disposal Site	State	Type	Sept. Rcvd.	Tip fee1	Note1	Tip fee2	Note2
Greater Lawrence Sanitary Dist	MA	MF	9608650	45/1000	Any accepted town.	45/1000	Any accepted town
North Conway Water Precinct	NH	MF	1435960	Free	Within precinct	70/1000	Outside precinct
Northumberland WPCF	NH	MF	34100		Nurthumberland only		
Groveton WPCF	NH	MF	102550		Groveton only		
Peterborough WWTF	NH	MF	91750	35/1000	Hancock Sharon Peter	N/A	
Pittsfield WWTF	NH	MF	71220	25/1000	Pittsfield only.		
Plymouth Village W & S Dist	NH	MF	1092520	75/1000	Accepted Towns	N/A	
Portsmouth WWTF	NH	MF	720000	50/1000	Portsmth New Castle	N/A	
Seabrook WWTF	NH	MF	878000	Free	Seabrook only	N/A	
Somersworth WPCF	NH	MF	248500	70/1000	Somersworth	110/1000	Outside Somersworth
St. Johnsbury WWTF	VT	MF	9800	100/1000	Monroe		
Waterville Valley AWWTF	NH	MF	34100	20/1000	Waterville only	N/A	
Lebanon WWTF	NH	MF	3800000	40/1000	Lebanon & Enfield	90/1000	Outside area.
Windsor WWTF	VT	MF	5000	200/1000	Out of Vermont	100/1000	in service area
Wolfeboro WPAF	NH	MF	37300	100/1000	Wolfeboro only		3/2 will
Alton	NH	ML	250000	25/1000	Alton only		
Barrington	NH	ML	455000	45/load	Barrington only.		
Canaan Water & Sewer	NH	ML	80000	40/1000	Canaan Enfield	50/1000	Outside towns
Ossipee	NH	ML	513875	30/1000	Ossipee only.		
Tuftonboro	NH	ML					
Farmington Landfill	NH	ML	261000	15/1000	Farmington only		
Hopkinton Trans Sta	NH	ML	1419000	40/1000	Hopkinton & Webster	N/A	
Loudon	NH	ML	424042	35/1000	Loudon only		
Madison	NH	ML	5675	Free	Madison only		Closed July/Aug '98
Milton	NH	ML	193000	15/1000	Milton only		
New Durham	NH	ML	170000	15/load	Up to 2000gals	1/100	afterwards
New Ipswich	NH	ML	397700	Free	Town only.	35/load	to vote in April
Stratford	NH	ML	94300	40/1000	Private haulers (2).	95/load	Stratford truck.
Sutton	NH	ML					
Northwood	NH	ML	72000	10/100	Northwood only.		
Pittsburg	NH	ML	90000	10/load	Pittsburg	25/load	Clarksville
Wakefield	NH	ML	517625	35/1000	Wakefield Brookfield	N/A	
Stewartstown	NH	ML	49800	50/load	Stewartstown	65/load	Columbia
East Kingston (Bodwell)	NH	PF	4140540				
Haverhill MA, Stewarts Septic	MA	PF	2496000	110/1000	Avg 8000gals/day		
Weare (Phillips)	NH	PF	1242300	70/1000			
Bartlett (US Forest Serv)	NH	PL	60000	Free	Recreation.		U.S. Forest Service
Swanzey (Madden)	NH	PL		confidential			
Swanzey (Bell)	NH	PL	670800	confidential			
Lisbon (Schofield)	NH	PL	1000000	confidential	Domestic only		
Moultonborough (Lamprey)	NH	PL	2442925	confidential	holding tanks	confidential	septage tanks
Haverhill (Boudreault)	NH	PL	515000	confidential			
Peterborough (Brown)	NH	PL		confidential			
Pittsfield (St. Laurent)	NH	PL	210000	confidential	Varies by town/dist		
Pittsfield (Gosse)	NH	PL	354225	confidential			
Swanzey (Blood)	NH	PL	144270	confidential			
Tuftonboro (Joubert)	NH	PL	120000	confidential			

1998 NH Septage Disposal by Type



LA: Land Application MF: Municipal Facility ML: Municipal Lagoon PF: Private Facility PL: Private Lagoon

1998 NH Septage Disposal by States



Figures in gallons

SYNOPSIS
Meeting with Elected Officials from Nashua, Hudson, Meredith, Tilton
***re:* Asbestos Waste Site Issues**
October 22, 1999; 1:00 PM
Rms. 213-214, NHDES Office Building, 6 Hazen Drive, Concord, New Hampshire

I. MEETING PURPOSE

- Provide information concerning the status of the New Hampshire Department of Environmental Services' (NHDES) asbestos waste disposal site management program, including:
  - ✓ proposed changes in legislation
  - ✓ pending public education initiatives
- Exchange general information / ideas which will both maintain and strengthen a state / local partnership that is committed to protecting public health within the affected communities.

II. BACKGROUND / HISTORY OF ASBESTOS WASTE SITE SITUATION

- *Nashua/Hudson:* The Johns-Manville Plant, which manufactured asbestos-containing building materials, operated 100+/- yrs. in Nashua. Asbestos waste was provided free of charge for use as fill thru-out the two communities and perhaps beyond. The material is now known to be disposed on 300+ properties in Nashua & Hudson. Sites include residential, commercial, industrial and public lands. Estimates suggests there may be over 400,000 tons of asbestos waste disposed throughout these communities.
- *Meredith:* Keasbey & Mattison operated an asbestos plant (now the site of the Mill Falls Marketplace) from 1940's until 1962, when the plant was purchased by Amatex. Amatex continued to make asbestos products (roping, etc.) at the plant until late 1982. Known disposal sites include theTown landfill off Jenness Hill Road. It is unknown whether additional sites exist within the community.
- *Tilton:* Quinn-T manufactured asbestos paper products. Waste was disposed at the plant site. It is unknown whether additional sites exist within the community.
- During mid-1980's, NHDES (then the Office of Waste Management in the Division of Public Health Services) initiated, through its Solid Waste Management Program under the authority of RSA 149-M, an effort to identify asbestos waste disposal sites in the state. Using information from various sources, approximately 40 sites were initially identified in Nashua & Hudson. As stated above, the list has now grown to over 300 sites and continues to expand at a rate of 20+/- per year.
- During this same relative time frame, NHDES also became involved in efforts to close the Amatex plant site in Meredith and asbestos disposal sites located on the Quinn-T plant property in Tilton.

III. OVERVIEW OF EXISTING NHDES ASBESTOS WASTE SITE PROGRAM

- *Mission:* to minimize the potential for human exposure to asbestos waste and thereby protect public health.
- While a primary focus of the program is to protect public health, NHDES recognizes the need to do so in a manner that allows the impacted properties to remain viable in their current land use setting.
- *Program Goals/Elements*:
  - ✓ Locate and assess condition of all sites
  - ✓ Abate imminent threats, by providing temporary cover and access control
  - ✓ Remediate sites for long term protection, by providing permanent cover and/or removal
  - ✓ Control future disturbance of sites
  - ✓ Monitor and maintain sites
  - ✓ Educat/inform public and foster public involvement

HB 1201
1-19-2000
Rep Betsey Patten
Submitted by

- *Applicable Federal Regulations:*
  - National Emission Standard for Hazardous Air Pollutants (NESHAP) or 40 CFR Part 61
    - ✓ cause no visible emission of asbestos dust / fibers
    - ✓ cover asbestos with minimum of 6" of soil with vegetation or 24" without vegetation
    - ✓ do not excavate or otherwise disturb the asbestos, without notifying EPA 45 days in advance and providing a work plan
    - ✓ record notice in chain of title for property
  - At present, New Hampshire is delegated by EPA to implement/enforce NESHAP. Maintaining delegation requires a comparable state law to be established.

- *State Statutes:*
  - RSA 149-M (Solid Waste Management; not applicable to sites pre-dating 07-10-81)
  - RSA 125-C (Air Quality; broad and non-specific; does not explicitly address asbestos waste sites)
  - RSA 141-E (Asbestos Abatement Projects; does not explicitly address asbestos waste sites)
  - RSA 147:1 (Local Authority by Health Officer; allows local ordinances to be adopted)

IV. PROGRAM NEEDS

- Obtain clear and explicit statutory authority / direction
- Improve public education and information systems
- Enhance state / local partnerships
- Create means with EPA to exercise flexibility under NESHAP for more cost-effective and practical options
- Obtain federal grants for site remediation

V. AMEND RSA 141-E:

- *Purpose and intent:*
  - ✓ clarify/provide explicit authority for continuing to implement asbestos waste site program
  - ✓ consolidate New Hampshire's asbestos regulations into one statute
  - ✓ maintain authority / ability to implement federal NESHAP requirements, thus enabling NHDES to advocate for the property owners and obtain needed flexibility
  - ✓ articulate state / local partnership toward achieving the program mission

- *Proposed amendments include*:

  ✓ all goals/elements of the existing program (see III above)

  PLUS

  ✓ authority to apply for and receive federal grant money
  ✓ ability by Department of Health & Human Services to expand existing licensing/education program to include contractors who excavate / disturb asbestos waste sites
  ✓ reinforcement of state / local partnership in implementing program
  ✓ provisions to implement and enforce NESHAP requirements, including deed notice

VI. SUMMARY: PENDING PROGRAM ACTIVITIES

- Amendments to RSA 141-E
- Actively exploring options with US-EPA to obtain NESHAP flexibilities and structured remedial assistance
- Will be exploring options with town officials for establishing local controls for implementing NESHAP based activity and property use controls at the local level, for example by local ordinance and/or building permit process
- Preparing to distribute Guidance Document to assist property owners in recognizing asbestos waste and properly managing asbestos waste sites
- Deed notification
- Emphasis on keeping these properties viable, while assuring protection of public health

Submitted by Dick Flanders #HB 1201 1-19-2000

NEW HAMPSHIRE
DEPARTMENT OF
Environmental
Services

1998 RANDOM TESTING REPORT

Sludge and Septage Program

January 14, 2000

NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Department of Environmental Services 1998 Random Testing Report

(Issued January 14, 2000)

As required by RSA 485-A:4, XVI-c, the Department of Environmental Services has implemented a program of random site inspections and sampling of sludge prior to land application. Site and facility inspections have been conducted based on requests from municipal officials, abutters, and sludge management companies. Site inspections have also been conducted as a result of formal complaints registered with the Department.

RESULTS

Table I show the sites where samples were collected as part of the 1998 random sampling program. Forty individual analyses were performed on sludges from 19 different sites involving 19 different generators. Fifteen of the samples collected were papermill sludge or a mixture of papermill sludge.

Table I. Summary of Random Sample Collected and Analyzed in 1998

#	Site/Facility	Sample Date	Town	Generator	Analysis	Lab Sample #
1	MSGC	1-14-98	Hooksett	biomix	metals	L57076-1
2	MSGC	1-14-98	Hooksett	EHV	8260	L57067-2
3	MSGC	1-14-98	Hooksett	VPS	8260	L57067-3
4	MSGC	1-14-98	Hooksett	biomix	8260	L57067-4
5	Morrill	2-9-98	Penacook	Concord	8260	L57921-1
6	Highway View Farm - Home	2-9-98	Boscawen	Brattleboro	8260	L57921-2
7	Natkiel	2-9-98	Hill	Suncook	8260	L57921-3
8	Natkiel	2-9-98	Hill	Franklin	8260	L57921-4
9	Ambrose	2-9-98	New Hampton	Simpson	8260	L57921-5
10	Ambrose	2-9-98	New Hampton	Biomix	8260	L57921-6
11	Peter King	2-10-98	Hooksett	Wausau	8260	L57996-1
12	Peter King	2-10-98	Hooksett	Monadnock	8260	L57996-2
13	Peter King	2-10-98	Hooksett	Specialty	8260	L57996-3
14	MSGC	2-10-98	Hooksett	Wausau	8260	L57996-4
15	MSGC	2-10-98	Hooksett	CPM	8260	L57996-5
16	Hooksett WWTF	2-10-98	Hooksett	Hooksett	8260	L57996-6
17	Sanborn Farm	2-10-98	Deerfield	multiple	8260	L57996-7

#	Site/Facility	Sample Date	Town	Generator	Analysis	Lab Sample #
18	Farm A (biofix)	2-27-98	Barnstead	Rochester IPS	fecal	L58594-1
19	Farm A (biofix)	2-27-98	Barnstead	Rochester IPS	metals	L58594-2
20	Farm B (biofix)	2-27-98	Epsom	Rochester IPS	fecal	L58594-3
21	Allen Farm	2-27-98	Epping	Amesbury	8260	L58594-4
22	Harvey Farm	2-27-98	Epping	Amesbury	metals	L58594-5
23	Harvey Farm	2-27-98	Epping	Amesbury	8260	L58594-6
24	Harvey Farm	2-27-98	Epping	Amesbury	metals	L58594-7
25	Harvey Farm	2-27-98	Epping	Amesbury	8260	L58594-8
26	Farm A	3-2-98	Barnstead	Springfield	fecal	L58632-1
27	Farm A	3-2-98	Barnstead	Springfield	metals	L58632-2
28	Farm B	3-2-98	Barnstead	Springfield	fecal	L58632-3
29	Farm B	3-2-98	Barnstead	Springfield	metals	L58632-4
30	Loudon Pile 1	3-2-98	Loudon	VPS	8260	L58632-5
31	Loudon Pile 2	3-2-98	Loudon	VPS	8260	L58632-6
32	Loudon Pile 3	3-2-98	Loudon	Biomix	8260	L58632-7
33	Evans	4-16-98	Madbury	Franklin	metals	L60463-1
34	Morrill Farm	10-16-98	Penacook	Concord	metals	L71338-1
35	Morrill Farm	10-16-98	Penacook	Franklin	metals	L71338-2
36	Morrill Farm	10-16-98	Penacook	Franklin	metals	L71338-3
37	Meeting House	10-27-98	Gilmanton	Lowell	metals	L71790-1
38	Hanson Farm	10-30-98	Center Harbor	Brattleboro	metals	L71965-1
39	MSGC	11-3-98	Hooksett	Biomix	8260	L72061-1
40	Hussey Farm	11-6-98	Conway	Seabrook	metals	L72285-1

Note: EHV = EHV Weidmann of St. Johnsbury, Vt.
VPS = Auburn VPS Limited Partnership of Auburn, Me.
Biomix = synthetic topsoil produced on site
Rochester IPS = Rochester Compost facility operated by BioGro

Table II contains the analytical results for samples that were collected for metals during 1998. Review of this data shows that no violations of state standards that were in place at the time the samples were collected.

Table II. Summary of Metals Results for 1998 Random Sludge Samples Reported in mg/kg, Dry Weight

Lab #	Arsenic (75)	Cadmium (85)	Chromium (3000)	Copper (4300)	Lead (840)	Mercury (57)	Molybdenum (75)	Nickel (420)	Selenium (100)	Zinc (7500)
L57076-1	<9.34	<0.93	7.7	12.9	15.7	<0.2	<2.43	10.8	<9.34	64.3
L58594-2	<10	<1.0	--	--	12.3	<0.2	--	--	--	--
L58594-5	<32.9	<3.29	28.2	498	91.4	<0.7	5.57	23.7	<32.9	300
L58594-7	<32.9	<3.29	34.5	494	95.6	<0.7	8.56	13.8	<32.9	288
L58632-2	<14	1.74	--	--	65.5	0.3	--	--	--	--
L58632-4	<7.54	1.7	--	--	39.2	0.5	--	--	--	--
L60463-1	<10	8.12	--	--	102	2.6	--	--	--	--
L71338-1	5.8	<3.26	45.9	298	54	2.52	<32.6	25.4	3.6	635
L71338-2	5.6	<4.68	13.2	496	33	1.87	<46.8	<18.7	<4.7	385
L71338-3	9.4	5.29	54.3	1250	156	2.89	<46.8	46.8	9.8	1930
L71790-1	4.08	4.65	26.5	421	71.4	<10	<35	35.8	<18	553
L71965-1	3.73	15	25.2	586	120	<10	<35	24.6	<23	1234
L72285-1	11	<6.9	39.9	312	<140	12.1	<35	<35	<68	364
Average	6.60	6.08	33.5	544	76.4	3.25	7.07	28.4	6.7	711
Standard Deviation	2.95	4.99	14.9	333	43.6	4.03	2.11	12.4	4.38	585
Average Deviation	2.40	3.65	11.6	199	34.7	2.53	1.50	8.83	3.1	419

Table III shows the results for fecal coliform analysis of Class A sludges tested during 1998. The fecal coliform result for Farm B collected on March 2,1998 in Barnstead was not a violation of the federal 1000 MPN/g dry weight limit since the standard is applied at the time the material is prepared and not in the field as stockpiled.

Table III. Fecal Coliform Results Expressed in Most Probable Number Per Gram Dry Weight

Date Sampled	Lab #	Type of residual	Generator	Site	Town	Fecal Coliform
2/27/98	L58594-1	Biofix	Rochester IPS	Farm A	Barnstead	<3.8
2/27/98	L58594-3	Biofix	Rochester IPS	Farm B	Barnstead	<4
3/2/98	L58632-1	Compost	Springfield	Farm A	Barnstead	<5.3
3/2/98	L58632-3	Compost	Springfield	Farm B	Barnstead	>2963

Table IV lists the volatile organic compounds detected out of 67 analytes in 16 out 23 samples collected during random sludge sampling in 1998. There were no standards for regulation of organic compounds in sludge when these samples were collected.

Table IV. Volatile Organic Compound Concentration for 1998 Reported in mg/kg Dry Weight

Lab #	1,2,4-trimethylbenzene	MEK	Acetone	Tetrachloroethene	Toluene	p-isopropyltoluene	1,3-dichlorobenzene	1,3,5- trimethylbenzene	Naphthalene	m/p-xylene	o-xylene	1,4-dichlorobenzene	1,2-dichlorobenzene	Carbon disulfide	methylene chloride
L57921-1	0.076	0.86	0.99	0.048	0.35	0.085									
L57921-2						0.087									
L57921-4	0.64		1.3			2.6	0.15	0.19	0.34						
L57996-1		3.6	22												
L57996-3						0.053									
L57996-4			1.2						0.41						
L57996-5		9.4	190												
L57996-6			2.1												
L57996-7	1.7		0.53		2.9	0.62			0.084	0.073	0.032				
L58594-4	0.033	0.38	0.87		0.029	0.068		0.014				0.018			
L58594-6		0.18	0.15		0.079	0.14						0.24	0.03		
L58594-8			0.095	0.021	0.033							0.12	0.019		
L58632-5			0.098			0.022								0.021	
L58632-6		0.32	9.4												
L58632-7			0.11												
L72061-1															0.004
# detections	4	6	13	2	5	8	1	2	3	1	1	3	2	1	1
% detections	17.39	26.09	56.52	8.70	21.74	34.78	4.35	8.70	13.04	4.35	4.35	13.04	8.70	4.35	4.35
average	0.61	2.46	17.60	0.03	0.68	0.89	0.15	0.10	0.28	0.07	0.03	0.13	0.02	0.02	0.00

Lab reports for all samples are included in the Appendix to this report.

APPENDIX

1998 Random Testing Data
Laboratory Reports

State of New Hampshire
Department of Environmental Services
6 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3445/3446

Results of Laboratory Analysis

Sample #: L57067-1
Category: IN HOUSE
Matrix : Sludge
Collection Date: 01/14/98 09:00
Log in Date : 01/14/98 12:46
Completion Date: 02/12/98

Locator : BIO MIX SLUDGE
Descript: SLUDGE
Site : HOOKSETT
Sampler : J. HERRICK X-7888
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
ARSENIC	**<9.34**	mg/Kg	9.34	SW 3050/7060
CADMIUM	**<0.93**	mg/Kg	.93	SW 3050/7131
CHROMIUM	**7.7**	mg/Kg	.93	SW 3050/6010
COPPER	**12.9**	mg/Kg	.93	SW 3050/6010
LEAD	**15.7**	mg/Kg	4.67	SW 3050/7420
MERCURY	**<0.2**	mg/Kg	.2	SW-7471
MOLYBDENUM	**<2.43**	mg/Kg	2.43	SW3050/6010
NICKEL	**10.8**	mg/Kg	.93	SW 3050/6010
SELENIUM	**<9.34**	mg/Kg	9.34	SW 3050/7740
ZINC	**64.3**	mg/Kg	.93	SW 3050/6010

Client's Comments: SHORT PAPER FIBER, SAMPLES + MIX

Analyst Comments: SUBCONTRACT: CHEMSERVE SAMPLE #A22-98-09

Report Comments: RESULTS REPORTED AS DRY WEIGHT; %SOLIDS = 53.5%

Measure date: 26-JAN-98

Authorized Signature: Patricia Bedford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

State of New Hampshire
Department of Environmental Services
6 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3445/3446

Results of Laboratory Analysis

Sample #: L57067-2
Category: IN HOUSE
Matrix : Solid
Collection Date: 01/14/98 09:00
Log in Date : 01/14/98
Completion Date: 02/12/98

Site : HOOKSETT
Sampler : J. HERRICK X-7888
Locator : EHV
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	4	1,1,1-Trichloroethane	BDL	4
1,1,2,2-Tetrachloroethane	BDL	4	1,1,2-Trichloroethane	BDL	4
1,1-Dichloroethane	BDL	4	1,1-Dichloroethene	BDL	4
1,1-Dichloropropene	BDL	4	1,2,3-Trichlorobenzene	BDL	4
1,2,3-Trichloropropane	BDL	4	1,2,4-Trichlorobenzene	BDL	4
1,2,4-Trimethylbenzene	BDL	4	1,2-Dibromo-3-chloropropane	BDL	4
1,2-Dichlorobenzene	BDL	4	1,2-Dichloroethane	BDL	4
1,2-Dichloropropane	BDL	4	1,3,5-Trimethylbenzene	BDL	4
1,3-Dichlorobenzene	BDL	4	1,3-Dichloropropane	BDL	4
1,4-Dichlorobenzene	BDL	4	2,2-Dichloropropane	BDL	4
2-Butanone	BDL	20	2-Hexanone	BDL	4
4-Methyl-2-pentanone	BDL	20	Acetone	BDL	20
Benzene	BDL	4	Bromobenzene	BDL	4
Bromochloromethane	BDL	4	Bromoform	BDL	4
Bromomethane	BDL	4	Carbon disulfide	BDL	4
Carbon tetrachloride	BDL	4	Chlorobenzene	BDL	4
Chloroethane	BDL	4	Chloroform	BDL	4
Chloromethane	BDL	4	Dibromochloromethane	BDL	4
Dibromomethane	BDL	4	Dichlorobromomethane	BDL	4
Dichlorodifluoromethane	BDL	4	Diethyl ether	BDL	4
Ethylbenzene	BDL	4	Ethylene dibromide	BDL	4
Hexachlorobutadiene	BDL	4	Isopropylbenzene	BDL	4
Methyl-t-butyl ether	BDL	4	Methylene chloride	BDL	4
Naphthalene	BDL	4	Styrene	BDL	4
Tetrachloroethene	BDL	4	Tetrahydrofuran(THF)	BDL	20
Toluene	BDL	4	Trichloroethene	BDL	4
Trichlorofluoromethane	BDL	4	Vinyl chloride	BDL	4
cis-1,2-Dichloroethene	BDL	4	cis-1,3-Dichloropropene	BDL	4
m/p-Xylenes	BDL	4	n-Butylbenzene	BDL	4
n-Propylbenzene	BDL	4	o-Chlorotoluene	BDL	4
o-Xylene	BDL	4	p-Chlorotoluene	BDL	4
p-Isopropyltoluene	BDL	4	sec-Butylbenzene	BDL	4
tert-Butylbenzene	BDL	4	trans-1,2-Dichloroethene	BDL	4
trans-1,3-Dichloropropene	BDL	4			

EPA Method : SW-8260 Units: ug/g

Client's Comments: SHORT PAPER FIBER, SAMPLES + MIX

Measure date: 15-JAN-98

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

State of New Hampshire
Department of Environmental Services
6 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3445/3446

Results of Laboratory Analysis

Sample #: L57067-3
Category: IN HOUSE
Matrix : Solid
Collection Date: 01/14/98 09:00
Log in Date : 01/14/98
Completion Date: 02/12/98

Site : HOOKSETT
Sampler : J. HERRICK X-7888
Locator : VPS
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	2.125	1,1,1-Trichloroethane	BDL	2.125
1,1,2,2-Tetrachloroethane	BDL	2.125	1,1,2-Trichloroethane	BDL	2.125
1,1-Dichloroethane	BDL	2.125	1,1-Dichloroethene	BDL	2.125
1,1-Dichloropropene	BDL	2.125	1,2,3-Trichlorobenzene	BDL	2.125
1,2,3-Trichloropropane	BDL	2.125	1,2,4-Trichlorobenzene	BDL	2.125
1,2,4-Trimethylbenzene	BDL	2.125	1,2-Dibromo-3-chloropropane	BDL	2.125
1,2-Dichlorobenzene	BDL	2.125	1,2-Dichloroethane	BDL	2.125
1,2-Dichloropropane	BDL	2.125	1,3,5-Trimethylbenzene	BDL	2.125
1,3-Dichlorobenzene	BDL	2.125	1,3-Dichloropropane	BDL	2.125
1,4-Dichlorobenzene	BDL	2.125	2,2-Dichloropropane	BDL	2.125
2-Butanone	BDL	10.625	2-Hexanone	BDL	2.125
4-Methyl-2-pentanone	BDL	10.625	Acetone	BDL	10.625
Benzene	BDL	2.125	Bromobenzene	BDL	2.125
Bromochloromethane	BDL	2.125	Bromoform	BDL	2.125
Bromomethane	BDL	2.125	Carbon disulfide	BDL	2.125
Carbon tetrachloride	BDL	2.125	Chlorobenzene	BDL	2.125
Chloroethane	BDL	2.125	Chloroform	BDL	2.125
Chloromethane	BDL	2.125	Dibromochloromethane	BDL	2.125
Dibromomethane	BDL	2.125	Dichlorobromomethane	BDL	2.125
Dichlorodifluoromethane	BDL	2.125	Diethyl ether	BDL	2.125
Ethylbenzene	BDL	2.125	Ethylene dibromide	BDL	2.125
Hexachlorobutadiene	BDL	2.125	Isopropylbenzene	BDL	2.125
Methyl-t-butyl ether	BDL	2.125	Methylene chloride	BDL	2.125
Naphthalene	BDL	2.125	Styrene	BDL	2.125
Tetrachloroethene	BDL	2.125	Tetrahydrofuran(THF)	BDL	10.625
Toluene	BDL	2.125	Trichloroethene	BDL	2.125
Trichlorofluoromethane	BDL	2.125	Vinyl chloride	BDL	2.125
cis-1,2-Dichloroethene	BDL	2.125	cis-1,3-Dichloropropene	BDL	2.125
m/p-Xylenes	BDL	2.125	n-Butylbenzene	BDL	2.125
n-Propylbenzene	BDL	2.125	o-Chlorotoluene	BDL	2.125
o-Xylene	BDL	2.125	p-Chlorotoluene	BDL	2.125
p-Isopropyltoluene	BDL	2.125	sec-Butylbenzene	BDL	2.125
tert-Butylbenzene	BDL	2.125	trans-1,2-Dichloroethene	BDL	2.125
trans-1,3-Dichloropropene	BDL	2.125			

EPA Method : SW-8260 Units: ug/g

Client's Comments: SHORT PAPER FIBER, SAMPLES + MIX

Analyst Comments. Aliphatic hydrocarbons C10 - C13 present.

Measure date: 15-JAN-98

Authorized Signature: Patricia Buckford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

State of New Hampshire
Department of Environmental Services
6 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3445/3446

Results of Laboratory Analysis

Sample #: L57067-4
Category: IN HOUSE
Matrix : Solid
Collection Date: 01/14/98 09:00
Log in Date : 01/14/98
Completion Date: 02/12/98

Site : HOOKSETT
Sampler : J. HERRICK X-7888
Locator : BIO SOIL MIX
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	1.975	1,1,1-Trichloroethane	BDL	1.975
1,1,2,2-Tetrachloroethane	BDL	1.975	1,1,2-Trichloroethane	BDL	1.975
1,1-Dichloroethane	BDL	1.975	1,1-Dichloroethene	BDL	1.975
1,1-Dichloropropene	BDL	1.975	1,2,3-Trichlorobenzene	BDL	1.975
1,2,3-Trichloropropane	BDL	1.975	1,2,4-Trichlorobenzene	BDL	1.975
1,2,4-Trimethylbenzene	BDL	1.975	1,2-Dibromo-3-chloropropane	BDL	1.975
1,2-Dichlorobenzene	BDL	1.975	1,2-Dichloroethane	BDL	1.975
1,2-Dichloropropane	BDL	1.975	1,3,5-Trimethylbenzene	BDL	1.975
1,3-Dichlorobenzene	BDL	1.975	1,3-Dichloropropane	BDL	1.975
1,4-Dichlorobenzene	BDL	1.975	2,2-Dichloropropane	BDL	1.975
2-Butanone	BDL	9.875	2-Hexanone	BDL	1.975
4-Methyl-2-pentanone	BDL	9.875	Acetone	BDL	9.875
Benzene	BDL	1.975	Bromobenzene	BDL	1.975
Bromochloromethane	BDL	1.975	Bromoform	BDL	1.975
Bromomethane	BDL	1.975	Carbon disulfide	BDL	1.975
Carbon tetrachloride	BDL	1.975	Chlorobenzene	BDL	1.975
Chloroethane	BDL	1.975	Chloroform	BDL	1.975
Chloromethane	BDL	1.975	Dibromochloromethane	BDL	1.975
Dibromomethane	BDL	1.975	Dichlorobromomethane	BDL	1.975
Dichlorodifluoromethane	BDL	1.975	Diethyl ether	BDL	1.975
Ethylbenzene	BDL	1.975	Ethylene dibromide	BDL	1.975
Hexachlorobutadiene	BDL	1.975	Isopropylbenzene	BDL	1.975
Methyl-t-butyl ether	BDL	1.975	Methylene chloride	BDL	1.975
Naphthalene	BDL	1.975	Styrene	BDL	1.975
Tetrachloroethene	BDL	1.975	Tetrahydrofuran(THF)	BDL	9.875
Toluene	BDL	1.975	Trichloroethene	BDL	1.975
Trichlorofluoromethane	BDL	1.975	Vinyl chloride	BDL	1.975
cis-1,2-Dichloroethene	BDL	1.975	cis-1,3-Dichloropropene	BDL	1.975
m/p-Xylenes	BDL	1.975	n-Butylbenzene	BDL	1.975
n-Propylbenzene	BDL	1.975	o-Chlorotoluene	BDL	1.975
o-Xylene	BDL	1.975	p-Chlorotoluene	BDL	1.975
p-Isopropyltoluene	BDL	1.975	sec-Butylbenzene	BDL	1.975
tert-Butylbenzene	BDL	1.975	trans-1,2-Dichloroethene	BDL	1.975
trans-1,3-Dichloropropene	BDL	1.975			

EPA Method : SW-8260 Units: ug/g

Client's Comments: SHORT PAPER FIBER, SAMPLES + MIX

Analyst Comments: Aliphatic hydrocarbons C10 - C13 present.

Measure date: 15-JAN-97

Authorized Signature: Patricia Boyd

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

State of New Hampshire
Department of Environmental Services
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(603) 271-3445/3446

Results of Laboratory Analysis

Sample #: L57921-1
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/09/98 10:30
Log in Date : 02/09/98
Completion Date: 03/01/98

Site :
Sampler : JIM HERRICK, PE
Locator : #1-CONCORD-1, PENACOOK
Descript : NPDES- Complaints
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	37.2	1,1,1-Trichloroethane	BDL	37.2
1,1,2,2-Tetrachloroethane	BDL	37.2	1,1,2-Trichloroethane	BDL	37.2
1,1-Dichloroethane	BDL	37.2	1,1-Dichloroethene	BDL	37.2
1,1-Dichloropropene	BDL	37.2	1,2,3-Trichlorobenzene	BDL	37.2
1,2,3-Trichloropropane	BDL	37.2	1,2,4-Trichlorobenzene	BDL	37.2
1,2,4-Trimethylbenzene	76	37.2	1,2-Dibromo-3-chloropropane	BDL	37.2
1,2-Dichlorobenzene	BDL	37.2	1,2-Dichloroethane	BDL	37.2
1,2-Dichloropropane	BDL	37.2	1,3,5-Trimethylbenzene	BDL	37.2
1,3-Dichlorobenzene	BDL	37.2	1,3-Dichloropropane	BDL	37.2
1,4-Dichlorobenzene	BDL	37.2	2,2-Dichloropropane	BDL	37.2
2-Butanone	860	372	2-Chloroethylvinyl ether	BDL	1860
2-Hexanone	BDL	372	4-Methyl-2-pentanone	BDL	372
Acetone	990	558	Acrolein	BDL	1860
Acrylonitrile	BDL	1860	Benzene	BDL	37.2
Bromobenzene	BDL	37.2	Bromochloromethane	BDL	37.2
Bromoform	BDL	37.2	Bromomethane	BDL	37.2
Carbon disulfide	BDL	37.2	Carbon tetrachloride	BDL	37.2
Chlorobenzene	BDL	37.2	Chloroethane	BDL	37.2
Chloroform	BDL	37.2	Chloromethane	BDL	37.2
Dibromochloromethane	BDL	37.2	Dibromomethane	BDL	37.2
Dichlorobromomethane	BDL	37.2	Dichlorodifluoromethane	BDL	37.2
Diethyl ether	BDL	186	Ethylbenzene	BDL	37.2
Ethylene dibromide	BDL	37.2	Hexachlorobutadiene	BDL	37.2
Isopropylbenzene	BDL	37.2	Methyl-t-butyl ether	BDL	37.2
Methylene chloride	BDL	37.2	Naphthalene	BDL	37.2
Styrene	BDL	37.2	Tetrachloroethene	48	37.2
Tetrahydrofuran(THF)	BDL	186	Toluene	350	37.2
Trichloroethene	BDL	37.2	Trichlorofluoromethane	BDL	37.2
Vinyl chloride	BDL	37.2	cis-1,2-Dichloroethene	BDL	37.2
cis-1,3-Dichloropropene	BDL	37.2	m/p-Xylenes	BDL	37.2
n-Butylbenzene	BDL	37.2	n-Propylbenzene	BDL	37.2
o-Chlorotoluene	BDL	37.2	o-Xylene	BDL	37.2
p-Chlorotoluene	BDL	37.2	p-Isopropyltoluene	85	37.2
sec-Butylbenzene	BDL	37.2	tert-Butylbenzene	BDL	37.2
trans-1,2-Dichloroethene	BDL	37.2	trans-1,3-Dichloropropene	BDL	37.2

EPA Method : SW-8260 Units: ug/kg

Client's Comments: STOCKPILE IN FIELD; ANALYSIS BY CHEMSERVE; LAB #B17-98-12

Analyst Comments: 3 LONG CHAIN HYDROCARBONS REPORTED AS TICS

Report Comments: RESULTS REPORTED AS DRY WEIGHT; % SOLIDS= 26.9%

Measure date: 20-FEB-98

Authorized Signature: Patricia Bickford

State of New Hampshire
Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L57921-2
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/09/98 11:10
Log in Date : 02/09/98
Completion Date: 03/01/98

Site :
Sampler : JIM HERRICK, PE
Locator : #2-BRATTLEBORO-1, BOSCAWEN
Descript : NPDES- Complaints
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	76.3	1,1,1-Trichloroethane	BDL	76.3
1,1,2,2-Tetrachloroethane	BDL	76.3	1,1,2-Trichloroethane	BDL	76.3
1,1-Dichloroethane	BDL	76.3	1,1-Dichloroethene	BDL	76.3
1,1-Dichloropropene	BDL	76.3	1,2,3-Trichlorobenzene	BDL	76.3
1,2,3-Trichloropropane	BDL	76.3	1,2,4-Trichlorobenzene	BDL	76.3
1,2,4-Trimethylbenzene	BDL	76.3	1,2-Dibromo-3-chloropropane	BDL	76.3
1,2-Dichlorobenzene	BDL	76.3	1,2-Dichloroethane	BDL	76.3
1,2-Dichloropropane	BDL	76.3	1,3,5-Trimethylbenzene	BDL	76.3
1,3-Dichlorobenzene	BDL	76.3	1,3-Dichloropropane	BDL	76.3
1,4-Dichlorobenzene	BDL	76.3	2,2-Dichloropropane	BDL	76.3
2-Butanone	BDL	763	2-Chloroethylvinyl ether	BDL	3820
2-Hexanone	BDL	763	4-Methyl-2-pentanone	BDL	763
Acetone	BDL	1140	Acrolein	BDL	3820
Acrylonitrile	BDL	3820	Benzene	BDL	76.3
Bromobenzene	BDL	76.3	Bromochloromethane	BDL	76.3
Bromoform	BDL	76.3	Bromomethane	BDL	76.3
Carbon disulfide	BDL	76.3	Carbon tetrachloride	BDL	76.3
Chlorobenzene	BDL	76.3	Chloroethane	BDL	76.3
Chloroform	BDL	76.3	Chloromethane	BDL	76.3
Dibromochloromethane	BDL	76.3	Dibromomethane	BDL	76.3
Dichlorobromomethane	BDL	76.3	Dichlorodifluoromethane	BDL	76.3
Diethyl ether	BDL	382	Ethylbenzene	BDL	76.3
Ethylene dibromide	BDL	76.3	Hexachlorobutadiene	BDL	76.3
Isopropylbenzene	BDL	76.3	Methyl-t-butyl ether	BDL	76.3
Methylene chloride	BDL	76.3	Naphthalene	BDL	76.3
Styrene	BDL	76.3	Tetrachloroethene	BDL	76.3
Tetrahydrofuran(THF)	BDL	382	Toluene	BDL	76.3
Trichloroethene	BDL	76.3	Trichlorofluoromethane	BDL	76.3
Vinyl chloride	BDL	76.3	cis-1,2-Dichloroethene	BDL	76.3
cis-1,3-Dichloropropene	BDL	76.3	m/p-Xylenes	BDL	76.3
n-Butylbenzene	BDL	76.3	n-Propylbenzene	BDL	76.3
o-Chlorotoluene	BDL	76.3	o-Xylene	BDL	76.3
p-Chlorotoluene	BDL	76.3	p-Isopropyltoluene	87	76.3
sec-Butylbenzene	BDL	76.3	tert-Butylbenzene	BDL	76.3
trans-1,2-Dichloroethene	BDL	76.3	trans-1,3-Dichloropropene	BDL	76.3

EPA Method : SW-8260 Units: ug/kg

Client's Comments: STOCKPILE IN FIELD; ANALYSIS BY CHEMSERVE; LAB #B17-98-12

Analyst Comments: TWO UNKNOWN ALKANES REPORTED AS TICS

Report Comments: RESULTS REPORTED AS DRY WEIGHT; % SOLIDS = 26.2%

Measure date: 20-FEB-98

Authorized Signature: Patricia Bickford

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Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L57921-3
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/09/98 12:30
Log in Date : 02/09/98
Completion Date: 03/01/98

Site :
Sampler : JIM HERRICK, PE
Locator : #3-SUNCOOK-1, HILL
Descript : NPDES- Complaints
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	55.7	1,1,1-Trichloroethane	BDL	55.7
1,1,2,2-Tetrachloroethane	BDL	55.7	1,1,2-Trichloroethane	BDL	55.7
1,1-Dichloroethane	BDL	55.7	1,1-Dichloroethene	BDL	55.7
1,1-Dichloropropene	BDL	55.7	1,2,3-Trichlorobenzene	BDL	55.7
1,2,3-Trichloropropane	BDL	55.7	1,2,4-Trichlorobenzene	BDL	55.7
1,2,4-Trimethylbenzene	BDL	55.7	1,2-Dibromo-3-chloropropane	BDL	55.7
1,2-Dichlorobenzene	BDL	55.7	1,2-Dichloroethane	BDL	55.7
1,2-Dichloropropane	BDL	55.7	1,3,5-Trimethylbenzene	BDL	55.7
1,3-Dichlorobenzene	BDL	55.7	1,3-Dichloropropane	BDL	55.7
1,4-Dichlorobenzene	BDL	55.7	2,2-Dichloropropane	BDL	55.7
2-Butanone	BDL	557	2-Chloroethylvinyl ether	BDL	2790
2-Hexanone	BDL	557	4-Methyl-2-pentanone	BDL	557
Acetone	BDL	836	Acrolein	BDL	2790
Acrylonitrile	BDL	2790	Benzene	BDL	55.7
Bromobenzene	BDL	55.7	Bromochloromethane	BDL	55.7
Bromoform	BDL	55.7	Bromomethane	BDL	55.7
Carbon disulfide	BDL	55.7	Carbon tetrachloride	BDL	55.7
Chlorobenzene	BDL	55.7	Chloroethane	BDL	55.7
Chloroform	BDL	55.7	Chloromethane	BDL	55.7
Dibromochloromethane	BDL	55.7	Dibromomethane	BDL	55.7
Dichlorobromomethane	BDL	55.7	Dichlorodifluoromethane	BDL	55.7
Diethyl ether	BDL	279	Ethylbenzene	BDL	55.7
Ethylene dibromide	BDL	55.7	Hexachlorobutadiene	BDL	55.7
Isopropylbenzene	BDL	55.7	Methyl-t-butyl ether	BDL	55.7
Methylene chloride	BDL	55.7	Naphthalene	BDL	55.7
Styrene	BDL	55.7	Tetrachloroethene	BDL	55.7
Tetrahydrofuran(THF)	BDL	279	Toluene	BDL	55.7
Trichloroethene	BDL	55.7	Trichlorofluoromethane	BDL	55.7
Vinyl chloride	BDL	55.7	cis-1,2-Dichloroethene	BDL	55.7
cis-1,3-Dichloropropene	BDL	55.7	m/p-Xylenes	BDL	55.7
n-Butylbenzene	BDL	55.7	n-Propylbenzene	BDL	55.7
o-Chlorotoluene	BDL	55.7	o-Xylene	BDL	55.7
p-Chlorotoluene	BDL	55.7	p-Isopropyltoluene	BDL	55.7
sec-Butylbenzene	BDL	55.7	tert-Butylbenzene	BDL	55.7
trans-1,2-Dichloroethene	BDL	55.7	trans-1,3-Dichloropropene	BDL	55.7

EPA Method : SW-8260 Units: ug/kg

Client's Comments: STOCKPILE IN FIELD; ANALYSIS BY CHEMSERVE, LAB #B17-98-12

Analyst Comments: 3 HYDROCARBONS AND AN ESTER REPORTED AS TICS

Report Comments: RESULTS REPORTED AS DRY WEIGHT; %SOLIDS= 35.9%

Measure date: 20-FEB-98

Authorized Signature: Patricia Bedford

State of New Hampshire
Department of Environmental Services
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(603) 271-3445/3446

Results of Laboratory Analysis

Sample #: L57921-4
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/09/98 12:30
Log in Date : 02/09/98
Completion Date: 03/01/98

Site :
Sampler : JIM HERRICK, PE
Locator : #4-FRANKLIN-1, HILL
Descript : NPDES- Complaints
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	68.3	1,1,1-Trichloroethane	BDL	68.3
1,1,2,2-Tetrachloroethane	BDL	68.3	1,1,2-Trichloroethane	BDL	68.3
1,1-Dichloroethane	BDL	68.3	1,1-Dichloroethene	BDL	68.3
1,1-Dichloropropene	BDL	68.3	1,2,3-Trichlorobenzene	BDL	68.3
1,2,3-Trichloropropane	BDL	68.3	1,2,4-Trichlorobenzene	BDL	68.3
1,2,4-Trimethylbenzene	640	68.3	1,2-Dibromo-3-chloropropane	BDL	68.3
1,2-Dichlorobenzene	BDL	68.3	1,2-Dichloroethane	BDL	68.3
1,2-Dichloropropane	BDL	68.3	1,3,5-Trimethylbenzene	190	68.3
1,3-Dichlorobenzene	150	68.3	1,3-Dichloropropane	BDL	68.3
1,4-Dichlorobenzene	BDL	68.3	2,2-Dichloropropane	BDL	68.3
2-Butanone	BDL	683	2-Chloroethylvinyl ether	BDL	3420
2-Hexanone	BDL	683	4-Methyl-2-pentanone	BDL	683
Acetone	1300	1020	Acrolein	BDL	3420
Acrylonitrile	BDL	3420	Benzene	BDL	68.3
Bromobenzene	BDL	68.3	Bromochloromethane	BDL	68.3
Bromoform	BDL	68.3	Bromomethane	BDL	68.3
Carbon disulfide	BDL	68.3	Carbon tetrachloride	BDL	68.3
Chlorobenzene	BDL	68.3	Chloroethane	BDL	68.3
Chloroform	BDL	68.3	Chloromethane	BDL	68.3
Dibromochloromethane	BDL	68.3	Dibromomethane	BDL	68.3
Dichlorobromomethane	BDL	68.3	Dichlorodifluoromethane	BDL	68.3
Diethyl ether	BDL	342	Ethylbenzene	BDL	68.3
Ethylene dibromide	BDL	68.3	Hexachlorobutadiene	BDL	68.3
Isopropylbenzene	BDL	68.3	Methyl-t-butyl ether	BDL	68.3
Methylene chloride	BDL	68.3	Naphthalene	340	68.3
Styrene	BDL	68.3	Tetrachloroethene	BDL	68.3
Tetrahydrofuran(THF)	BDL	342	Toluene	BDL	68.3
Trichloroethene	BDL	68.3	Trichlorofluoromethane	BDL	68.3
Vinyl chloride	BDL	68.3	cis-1,2-Dichloroethene	BDL	68.3
cis-1,3-Dichloropropene	BDL	68.3	m/p-Xylenes	BDL	68.3
n-Butylbenzene	BDL	68.3	n-Propylbenzene	BDL	68.3
o-Chlorotoluene	BDL	68.3	o-Xylene	BDL	68.3
p-Chlorotoluene	BDL	68.3	p-Isopropyltoluene	2600	68.3
sec-Butylbenzene	BDL	68.3	tert-Butylbenzene	BDL	68.3
trans-1,2-Dichloroethene	BDL	68.3	trans-1,3-Dichloropropene	BDL	68.3

EPA Method : SW-8260 Units: ug/kg

Client's Comments: STOCKPILE IN FIELD; ANALYSIS BY CHEMSERVE; LAB #B17-98-12

Analyst Comments: SEVERAL LONG CHAIN HYDROCARBONS REPORTED AS TICS

Report Comments: RESULTS REPORTED AS DRY WEIGHT; % SOLIDS= 29.3%

Measure date: 20-FEB-98

Authorized Signature: Patricia Bedford

State of New Hampshire
Department of Environmental Services
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(603) 271-3445/3446

Results of Laboratory Analysis

Sample #: L57921-5
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/09/98 13:30
Log in Date : 02/09/98
Completion Date: 03/01/98

Site :
Sampler : JIM HERRICK, PE
Locator : #5-SIMPSON-SPF, NEW HAMPTON
Descript : NPDES- Complaints
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	65.3	1,1,1-Trichloroethane	BDL	65.3
1,1,2,2-Tetrachloroethane	BDL	65.3	1,1,2-Trichloroethane	BDL	65.3
1,1-Dichloroethane	BDL	65.3	1,1-Dichloroethene	BDL	65.3
1,1-Dichloropropene	BDL	65.3	1,2,3-Trichlorobenzene	BDL	65.3
1,2,3-Trichloropropane	BDL	65.3	1,2,4-Trichlorobenzene	BDL	65.3
1,2,4-Trimethylbenzene	BDL	65.3	1,2-Dibromo-3-chloropropane	BDL	65.3
1,2-Dichlorobenzene	BDL	65.3	1,2-Dichloroethane	BDL	65.3
1,2-Dichloropropane	BDL	65.3	1,3,5-Trimethylbenzene	BDL	65.3
1,3-Dichlorobenzene	BDL	65.3	1,3-Dichloropropane	BDL	65.3
1,4-Dichlorobenzene	BDL	65.3	2,2-Dichloropropane	BDL	65.3
2-Butanone	BDL	653	2-Chloroethylvinyl ether	BDL	3270
2-Hexanone	BDL	653	4-Methyl-2-pentanone	BDL	653
Acetone	BDL	980	Acrolein	BDL	3270
Acrylonitrile	BDL	3270	Benzene	BDL	65.3
Bromobenzene	BDL	65.3	Bromochloromethane	BDL	65.3
Bromoform	BDL	65.3	Bromomethane	BDL	65.3
Carbon disulfide	BDL	65.3	Carbon tetrachloride	BDL	65.3
Chlorobenzene	BDL	65.3	Chloroethane	BDL	65.3
Chloroform	BDL	65.3	Chloromethane	BDL	65.3
Dibromochloromethane	BDL	65.3	Dibromomethane	BDL	65.3
Dichlorobromomethane	BDL	65.3	Dichlorodifluoromethane	BDL	65.3
Diethyl ether	BDL	327	Ethylbenzene	BDL	65.3
Ethylene dibromide	BDL	65.3	Hexachlorobutadiene	BDL	65.3
Isopropylbenzene	BDL	65.3	Methyl-t-butyl ether	BDL	65.3
Methylene chloride	BDL	65.3	Naphthalene	BDL	65.3
Styrene	BDL	65.3	Tetrachloroethene	BDL	65.3
Tetrahydrofuran(THF)	BDL	327	Toluene	BDL	65.3
Trichloroethene	BDL	65.3	Trichlorofluoromethane	BDL	65.3
Vinyl chloride	BDL	65.3	cis-1,2-Dichloroethene	BDL	65.3
cis-1,3-Dichloropropene	BDL	65.3	m/p-Xylenes	BDL	65.3
n-Butylbenzene	BDL	65.3	n-Propylbenzene	BDL	65.3
o-Chlorotoluene	BDL	65.3	o-Xylene	BDL	65.3
p-Chlorotoluene	BDL	65.3	p-Isopropyltoluene	BDL	65.3
sec-Butylbenzene	BDL	65.3	tert-Butylbenzene	BDL	65.3
trans-1,2-Dichloroethene	BDL	65.3	trans-1,3-Dichloropropene	BDL	65.3

EPA Method : SW-8260 Units: ug/kg

Client's Comments: STOCKPILE IN FIELD; ANALYSIS BY CHEMSERVE; LAN#B17-98-12

Report Comments: RESULTS REPORTED AS DRY WEIGHT; % SOLIDS = 30.6%

Measure date: 20-FEB-98

Authorized Signature: Patricia Bedford

mg/L = milligrams per Liter ug/L = micrograms per Liter > = Greater Than

State of New Hampshire
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Results of Laboratory Analysis

Sample #: L57921-6
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/09/98 13:30
Log in Date : 02/09/98
Completion Date: 03/01/98

Site :
Sampler : JIM HERRICK, PE
Locator : #6-BIOMIX SOIL, NEW HAMPTON
Descript : NPDES- Complaints
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	13	1,1,1-Trichloroethane	BDL	13
1,1,2,2-Tetrachloroethane	BDL	13	1,1,2-Trichloroethane	BDL	13
1,1-Dichloroethane	BDL	13	1,1-Dichloroethene	BDL	13
1,1-Dichloropropene	BDL	13	1,2,3-Trichlorobenzene	BDL	13
1,2,3-Trichloropropane	BDL	13	1,2,4-Trichlorobenzene	BDL	13
1,2,4-Trimethylbenzene	BDL	13	1,2-Dibromo-3-chloropropane	BDL	13
1,2-Dichlorobenzene	BDL	13	1,2-Dichloroethane	BDL	13
1,2-Dichloropropane	BDL	13	1,3,5-Trimethylbenzene	BDL	13
1,3-Dichlorobenzene	BDL	13	1,3-Dichloropropane	BDL	13
1,4-Dichlorobenzene	BDL	13	2,2-Dichloropropane	BDL	13
2-Butanone	BDL	130	2-Chloroethylvinyl ether	BDL	650
2-Hexanone	BDL	130	4-Methyl-2-pentanone	BDL	130
Acetone	BDL	195	Acrolein	BDL	650
Acrylonitrile	BDL	650	Benzene	BDL	13
Bromobenzene	BDL	13	Bromochloromethane	BDL	13
Bromoform	BDL	13	Bromomethane	BDL	13
Carbon disulfide	BDL	13	Carbon tetrachloride	BDL	13
Chlorobenzene	BDL	13	Chloroethane	BDL	13
Chloroform	BDL	13	Chloromethane	BDL	13
Dibromochloromethane	BDL	13	Dibromomethane	BDL	13
Dichlorobromomethane	BDL	13	Dichlorodifluoromethane	BDL	13
Diethyl ether	BDL	65	Ethylbenzene	BDL	13
Ethylene dibromide	BDL	13	Hexachlorobutadiene	BDL	13
Isopropylbenzene	BDL	13	Methyl-t-butyl ether	BDL	13
Methylene chloride	BDL	13	Naphthalene	BDL	13
Styrene	BDL	13	Tetrachloroethene	BDL	13
Tetrahydrofuran(THF)	BDL	65	Toluene	BDL	13
Trichloroethene	BDL	13	Trichlorofluoromethane	BDL	13
Vinyl chloride	BDL	13	cis-1,2-Dichloroethene	BDL	13
cis-1,3-Dichloropropene	BDL	13	m/p-Xylenes	BDL	13
n-Butylbenzene	BDL	13	n-Propylbenzene	BDL	13
o-Chlorotoluene	BDL	13	o-Xylene	BDL	13
p-Chlorotoluene	BDL	13	p-Isopropyltoluene	BDL	13
sec-Butylbenzene	BDL	13	tert-Butylbenzene	BDL	13
trans-1,2-Dichloroethene	BDL	13	trans-1,3-Dichloropropene	BDL	13

EPA Method : SW-8260 Units: ug/kg

Client's Comments: STOCKPILE IN FIELD; ANALYSIS BY CHEMSERVE; LAB# B17-98-12

Report Comments: RESULTS REPORTED AS DRY WEIGHT; % SOLIDS= 76.7%

Measure date: 20-FEB-98

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter ug/L = micrograms per Liter > = Greater Than

State of New Hampshire
Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L57996-1
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/10/98 08:07
Log in Date : 02/10/98
Completion Date: 02/25/98

Site :
Sampler : ROBERT PETER
Locator : A-HOOKSETT-PETER KING--WAUSAU
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	42.7	1,1,1-Trichloroethane	BDL	42.7
1,1,2,2-Tetrachloroethane	BDL	42.7	1,1,2-Trichloroethane	BDL	42.7
1,1-Dichloroethane	BDL	42.7	1,1-Dichloroethene	BDL	42.7
1,1-Dichloropropene	BDL	42.7	1,2,3-Trichlorobenzene	BDL	42.7
1,2,3-Trichloropropane	BDL	42.7	1,2,4-Trichlorobenzene	BDL	42.7
1,2,4-Trimethylbenzene	BDL	42.7	1,2-Dibromo-3-chloropropane	BDL	42.7
1,2-Dichlorobenzene	BDL	42.7	1,2-Dichloroethane	BDL	42.7
1,2-Dichloropropane	BDL	42.7	1,3,5-Trimethylbenzene	BDL	42.7
1,3-Dichlorobenzene	BDL	42.7	1,3-Dichloropropane	BDL	42.7
1,4-Dichlorobenzene	BDL	42.7	2,2-Dichloropropane	BDL	42.7
2-Butanone	3600	427	2-Chloroethylvinyl ether	BDL	2140
2-Hexanone	BDL	427	4-Methyl-2-pentanone	BDL	427
Acetone	22000	3210	Acrolein	BDL	2140
Acrylonitrile	BDL	2140	Benzene	BDL	42.7
Bromobenzene	BDL	42.7	Bromochloromethane	BDL	42.7
Bromoform	BDL	42.7	Bromomethane	BDL	42.7
Carbon disulfide	BDL	42.7	Carbon tetrachloride	BDL	42.7
Chlorobenzene	BDL	42.7	Chloroethane	BDL	42.7
Chloroform	BDL	42.7	Chloromethane	BDL	42.7
Dibromochloromethane	BDL	42.7	Dibromomethane	BDL	42.7
Dichlorobromomethane	BDL	42.7	Dichlorodifluoromethane	BDL	42.7
Diethyl ether	BDL	214	Ethylbenzene	BDL	42.7
Ethylene dibromide	BDL	42.7	Hexachlorobutadiene	BDL	42.7
Isopropylbenzene	BDL	42.7	Methyl-t-butyl ether	BDL	42.7
Methylene chloride	BDL	42.7	Naphthalene	BDL	42.7
Styrene	BDL	42.7	Tetrachloroethene	BDL	42.7
Tetrahydrofuran(THF)	BDL	214	Toluene	BDL	42.7
Trichloroethene	BDL	42.7	Trichlorofluoromethane	BDL	42.7
Vinyl chloride	BDL	42.7	cis-1,2-Dichloroethene	BDL	42.7
cis-1,3-Dichloropropene	BDL	42.7	m/p-Xylenes	BDL	42.7
n-Butylbenzene	BDL	42.7	n-Propylbenzene	BDL	42.7
o-Chlorotoluene	BDL	42.7	o-Xylene	BDL	42.7
p-Chlorotoluene	BDL	42.7	p-Isopropyltoluene	BDL	42.7
sec-Butylbenzene	BDL	42.7	tert-Butylbenzene	BDL	42.7
trans-1,2-Dichloroethene	BDL	42.7	trans-1,3-Dichloropropene	BDL	42.7

EPA Method : SW-8260 Units: ug/kg

Client's Comments: ANALSIS BY CHEMSERVE; LAB #B18-98-07

Analyst Comments: SEVERAL LONG CHAIN HYDROCARBONS REPORTED AS TICS

Report Comments: RESULTS REPORTES AS DRY WEIGHT; %SOLIDS=23.4%

Measure date: 19-FEB-98

Authorized Signature: Patricia Buckford

State of New Hampshire
Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L57996-2
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/10/98 08:14
Log in Date : 02/10/98
Completion Date: 02/25/98

Site :
Sampler : ROBERT PETER
Locator : B-HOOKSETT-PETER KING-MONADNOCK
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	40.2	1,1,1-Trichloroethane	BDL	40.2
1,1,2,2-Tetrachloroethane	BDL	40.2	1,1,2-Trichloroethane	BDL	40.2
1,1-Dichloroethane	BDL	40.2	1,1-Dichloroethene	BDL	40.2
1,1-Dichloropropene	BDL	40.2	1,2,3-Trichlorobenzene	BDL	40.2
1,2,3-Trichloropropane	BDL	40.2	1,2,4-Trichlorobenzene	BDL	40.2
1,2,4-Trimethylbenzene	BDL	40.2	1,2-Dibromo-3-chloropropane	BDL	40.2
1,2-Dichlorobenzene	BDL	40.2	1,2-Dichloroethane	BDL	40.2
1,2-Dichloropropane	BDL	40.2	1,3,5-Trimethylbenzene	BDL	40.2
1,3-Dichlorobenzene	BDL	40.2	1,3-Dichloropropane	BDL	40.2
1,4-Dichlorobenzene	BDL	40.2	2,2-Dichloropropane	BDL	40.2
2-Butanone	BDL	402	2-Chloroethylvinyl ether	BDL	2010
2-Hexanone	BDL	402	4-Methyl-2-pentanone	BDL	402
Acetone	BDL	603	Acrolein	BDL	2010
Acrylonitrile	BDL	2010	Benzene	BDL	40.2
Bromobenzene	BDL	40.2	Bromochloromethane	BDL	40.2
Bromoform	BDL	40.2	Bromomethane	BDL	40.2
Carbon disulfide	BDL	40.2	Carbon tetrachloride	BDL	40.2
Chlorobenzene	BDL	40.2	Chloroethane	BDL	40.2
Chloroform	BDL	40.2	Chloromethane	BDL	40.2
Dibromochloromethane	BDL	40.2	Dibromomethane	BDL	40.2
Dichlorobromomethane	BDL	40.2	Dichlorodifluoromethane	BDL	40.2
Diethyl ether	BDL	201	Ethylbenzene	BDL	40.2
Ethylene dibromide	BDL	40.2	Hexachlorobutadiene	BDL	40.2
Isopropylbenzene	BDL	40.2	Methyl-t-butyl ether	BDL	40.2
Methylene chloride	BDL	40.2	Naphthalene	BDL	40.2
Styrene	BDL	40.2	Tetrachloroethene	BDL	40.2
Tetrahydrofuran(THF)	BDL	201	Toluene	BDL	40.2
Trichloroethene	BDL	40.2	Trichlorofluoromethane	BDL	40.2
Vinyl chloride	BDL	40.2	cis-1,2-Dichloroethene	BDL	40.2
cis-1,3-Dichloropropene	BDL	40.2	m/p-Xylenes	BDL	40.2
n-Butylbenzene	BDL	40.2	n-Propylbenzene	BDL	40.2
o-Chlorotoluene	BDL	40.2	o-Xylene	BDL	40.2
p-Chlorotoluene	BDL	40.2	p-Isopropyltoluene	BDL	40.2
sec-Butylbenzene	BDL	40.2	tert-Butylbenzene	BDL	40.2
trans-1,2-Dichloroethene	BDL	40.2	trans-1,3-Dichloropropene	BDL	40.2

EPA Method : SW-8260 Units: ug/kg

Client's Comments: ANALYSIS BY CHEMSERVE; LAB #B18-98-07

Analyst Comments: TWO HYDROCARBONS REPORTED AS TICS

Report Comments: RESULTS REORTED AS DRY WEIGHT; %SOLIDS=49.8%

Measure date: 19-FEB-98

Authorized Signature: Patricia Bickford

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Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L57996-3
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/10/98 08:26
Log in Date : 02/10/98
Completion Date: 02/25/98

Site :
Sampler : ROBERT PETER
Locator : C-HOOKSETT-PETER KING-SPECIALTY
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	48.3	1,1,1-Trichloroethane	BDL	48.3
1,1,2,2-Tetrachloroethane	BDL	48.3	1,1,2-Trichloroethane	BDL	48.3
1,1-Dichloroethane	BDL	48.3	1,1-Dichloroethene	BDL	48.3
1,1-Dichloropropene	BDL	48.3	1,2,3-Trichlorobenzene	BDL	48.3
1,2,3-Trichloropropane	BDL	48.3	1,2,4-Trichlorobenzene	BDL	48.3
1,2,4-Trimethylbenzene	BDL	48.3	1,2-Dibromo-3-chloropropane	BDL	48.3
1,2-Dichlorobenzene	BDL	48.3	1,2-Dichloroethane	BDL	48.3
1,2-Dichloropropane	BDL	48.3	1,3,5-Trimethylbenzene	BDL	48.3
1,3-Dichlorobenzene	BDL	48.3	1,3-Dichloropropane	BDL	48.3
1,4-Dichlorobenzene	BDL	48.3	2,2-Dichloropropane	BDL	48.3
2-Butanone	BDL	483	2-Chloroethylvinyl ether	BDL	2420
2-Hexanone	BDL	483	4-Methyl-2-pentanone	BDL	483
Acetone	BDL	725	Acrolein	BDL	2420
Acrylonitrile	BDL	2420	Benzene	BDL	48.3
Bromobenzene	BDL	48.3	Bromochloromethane	BDL	48.3
Bromoform	BDL	48.3	Bromomethane	BDL	48.3
Carbon disulfide	BDL	48.3	Carbon tetrachloride	BDL	48.3
Chlorobenzene	BDL	48.3	Chloroethane	BDL	48.3
Chloroform	BDL	48.3	Chloromethane	BDL	48.3
Dibromochloromethane	BDL	48.3	Dibromomethane	BDL	48.3
Dichlorobromomethane	BDL	48.3	Dichlorodifluoromethane	BDL	48.3
Diethyl ether	BDL	242	Ethylbenzene	BDL	48.3
Ethylene dibromide	BDL	48.3	Hexachlorobutadiene	BDL	48.3
Isopropylbenzene	BDL	48.3	Methyl-t-butyl ether	BDL	48.3
Methylene chloride	BDL	48.3	Naphthalene	BDL	48.3
Styrene	BDL	48.3	Tetrachloroethene	BDL	48.3
Tetrahydrofuran(THF)	BDL	242	Toluene	BDL	48.3
Trichloroethene	BDL	48.3	Trichlorofluoromethane	BDL	48.3
Vinyl chloride	BDL	48.3	cis-1,2-Dichloroethene	BDL	48.3
cis-1,3-Dichloropropene	BDL	48.3	m/p-Xylenes	BDL	48.3
n-Butylbenzene	BDL	48.3	n-Propylbenzene	BDL	48.3
o-Chlorotoluene	BDL	48.3	o-Xylene	BDL	48.3
p-Chlorotoluene	BDL	48.3	p-Isopropyltoluene	53	48.3
sec-Butylbenzene	BDL	48.3	tert-Butylbenzene	BDL	48.3
trans-1,2-Dichloroethene	BDL	48.3	trans-1,3-Dichloropropene	BDL	48.3

EPA Method : SW-8260 Units: ug/kg

Client's Comments: ANALYSIS BY CHEMSERVE; LAB #B18-98-07

Analyst Comments: TWO LONG CHAIN HYDROCARBONS REPORTED AS TICS

Report Comments: RESULTS REPORTED AS DRY WEIGHT; % SOLIDS= 41.4%

Measure date: 19-FEB-98

Authorized Signature: Patricia Bedford

State of New Hampshire
Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L57996-4
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/10/98 08:53
Log in Date : 02/10/98
Completion Date: 02/25/98

Site :
Sampler : ROBERT PETER
Locator : 1-HOOKSETT-MANCHESTER S&G--WAUSAU
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	78.7	1,1,1-Trichloroethane	BDL	78.7
1,1,2,2-Tetrachloroethane	BDL	78.7	1,1,2-Trichloroethane	BDL	78.7
1,1-Dichloroethane	BDL	78.7	1,1-Dichloroethene	BDL	78.7
1,1-Dichloropropene	BDL	78.7	1,2,3-Trichlorobenzene	BDL	78.7
1,2,3-Trichloropropane	BDL	78.7	1,2,4-Trichlorobenzene	BDL	78.7
1,2,4-Trimethylbenzene	BDL	78.7	1,2-Dibromo-3-chloropropane	BDL	78.7
1,2-Dichlorobenzene	BDL	78.7	1,2-Dichloroethane	BDL	78.7
1,2-Dichloropropane	BDL	78.7	1,3,5-Trimethylbenzene	BDL	78.7
1,3-Dichlorobenzene	BDL	78.7	1,3-Dichloropropane	BDL	78.7
1,4-Dichlorobenzene	BDL	78.7	2,2-Dichloropropane	BDL	78.7
2-Butanone	1200	787	2-Chloroethylvinyl ether	BDL	3940
2-Hexanone	BDL	787	4-Methyl-2-pentanone	BDL	787
Acetone	BDL	1180	Acrolein	BDL	3940
Acrylonitrile	BDL	3940	Benzene	BDL	78.7
Bromobenzene	BDL	78.7	Bromochloromethane	BDL	78.7
Bromoform	BDL	78.7	Bromomethane	BDL	78.7
Carbon disulfide	BDL	78.7	Carbon tetrachloride	BDL	78.7
Chlorobenzene	BDL	78.7	Chloroethane	BDL	78.7
Chloroform	BDL	78.7	Chloromethane	BDL	78.7
Dibromochloromethane	BDL	78.7	Dibromomethane	BDL	78.7
Dichlorobromomethane	BDL	78.7	Dichlorodifluoromethane	BDL	78.7
Diethyl ether	BDL	394	Ethylbenzene	BDL	78.7
Ethylene dibromide	BDL	78.7	Hexachlorobutadiene	BDL	78.7
Isopropylbenzene	BDL	78.7	Methyl-t-butyl ether	BDL	78.7
Methylene chloride	BDL	78.7	Naphthalene	410	78.7
Styrene	BDL	78.7	Tetrachloroethene	BDL	78.7
Tetrahydrofuran(THF)	BDL	394	Toluene	BDL	78.7
Trichloroethene	BDL	78.7	Trichlorofluoromethane	BDL	78.7
Vinyl chloride	BDL	78.7	cis-1,2-Dichloroethene	BDL	78.7
cis-1,3-Dichloropropene	BDL	78.7	m/p-Xylenes	BDL	78.7
n-Butylbenzene	BDL	78.7	n-Propylbenzene	BDL	78.7
o-Chlorotoluene	BDL	78.7	o-Xylene	BDL	78.7
p-Chlorotoluene	BDL	78.7	p-Isopropyltoluene	BDL	78.7
sec-Butylbenzene	BDL	78.7	tert-Butylbenzene	BDL	78.7
trans-1,2-Dichloroethene	BDL	78.7	trans-1,3-Dichloropropene	BDL	78.7

EPA Method : SW-8260 Units: ug/kg

Client's Comments: ANALYSIS BY CHEMSERVE; lAB#B17-98-13

Analyst Comments: UNKNOWN ALKENES AND LONG CHAIN HYDROCARBONS REPORTED AS TICS

Report Comments: RESULTS REPORTED AS DRY WEIGHT; %SOLIDS= 25.4%

Measure date: 19-FEB-98

Authorized Signature: Patricia Bickford

State of New Hampshire
Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L57996-5
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/10/98 08:57
Log in Date : 02/10/98
Completion Date: 02/25/98

Site :
Sampler : ROBERT PETER
Locator : 2-HOOKSETT-MANCHESTER S&G-CPM
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	162	1,1,1-Trichloroethane	BDL	162
1,1,2,2-Tetrachloroethane	BDL	162	1,1,2-Trichloroethane	BDL	162
1,1-Dichloroethane	BDL	162	1,1-Dichloroethene	BDL	162
1,1-Dichloropropene	BDL	162	1,2,3-Trichlorobenzene	BDL	162
1,2,3-Trichloropropane	BDL	162	1,2,4-Trichlorobenzene	BDL	162
1,2,4-Trimethylbenzene	BDL	162	1,2-Dibromo-3-chloropropane	BDL	162
1,2-Dichlorobenzene	BDL	162	1,2-Dichloroethane	BDL	162
1,2-Dichloropropane	BDL	162	1,3,5-Trimethylbenzene	BDL	162
1,3-Dichlorobenzene	BDL	162	1,3-Dichloropropane	BDL	162
1,4-Dichlorobenzene	BDL	162	2,2-Dichloropropane	BDL	162
2-Butanone	9400	1620	2-Chloroethylvinyl ether	BDL	8100
2-Hexanone	BDL	1620	4-Methyl-2-pentanone	BDL	1620
Acetone	190000	24000	Acrolein	BDL	8100
Acrylonitrile	BDL	8100	Benzene	BDL	162
Bromobenzene	BDL	162	Bromochloromethane	BDL	162
Bromoform	BDL	162	Bromomethane	BDL	162
Carbon disulfide	BDL	162	Carbon tetrachloride	BDL	162
Chlorobenzene	BDL	162	Chloroethane	BDL	162
Chloroform	BDL	162	Chloromethane	BDL	162
Dibromochloromethane	BDL	162	Dibromomethane	BDL	162
Dichlorobromomethane	BDL	162	Dichlorodifluoromethane	BDL	162
Diethyl ether	BDL	810	Ethylbenzene	BDL	162
Ethylene dibromide	BDL	162	Hexachlorobutadiene	BDL	162
Isopropylbenzene	BDL	162	Methyl-t-butyl ether	BDL	162
Methylene chloride	BDL	162	Naphthalene	BDL	162
Styrene	BDL	162	Tetrachloroethene	BDL	162
Tetrahydrofuran(THF)	BDL	810	Toluene	BDL	162
Trichloroethene	BDL	162	Trichlorofluoromethane	BDL	162
Vinyl chloride	BDL	162	cis-1,2-Dichloroethene	BDL	162
cis-1,3-Dichloropropene	BDL	162	m/p-Xylenes	BDL	162
n-Butylbenzene	BDL	162	n-Propylbenzene	BDL	162
o-Chlorotoluene	BDL	162	o-Xylene	BDL	162
p-Chlorotoluene	BDL	162	p-Isopropyltoluene	BDL	162
sec-Butylbenzene	BDL	162	tert-Butylbenzene	BDL	162
trans-1,2-Dichloroethene	BDL	162	trans-1,3-Dichloropropene	BDL	162

EPA Method : SW-8260 Units: ug/kg

Client's Comments: ANALYSIS BY CHEMSERVE; LAB #B17-98-13

Analyst Comments: SEVERAL ALKENES AND LONG CHAIN HYDROCARBONS REPORTED AS TICS

Report Comments: RESULTS REPORTED AS DRY WEIGHT; %SOLIDS= 12.4%

Measure date: 19-FEB-98

Authorized Signature: Patricia Bickford

State of New Hampshire
Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L57996-6
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/10/98 10:05
Log in Date : 02/10/98
Completion Date: 02/25/98

Site :
Sampler : ROBERT PETER
Locator : 3-HOOKSETT WWTF
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	61.3	1,1,1-Trichloroethane	BDL	61.3
1,1,2,2-Tetrachloroethane	BDL	61.3	1,1,2-Trichloroethane	BDL	61.3
1,1-Dichloroethane	BDL	61.3	1,1-Dichloroethene	BDL	61.3
1,1-Dichloropropene	BDL	61.3	1,2,3-Trichlorobenzene	BDL	61.3
1,2,3-Trichloropropane	BDL	61.3	1,2,4-Trichlorobenzene	BDL	61.3
1,2,4-Trimethylbenzene	BDL	61.3	1,2-Dibromo-3-chloropropane	BDL	61.3
1,2-Dichlorobenzene	BDL	61.3	1,2-Dichloroethane	BDL	61.3
1,2-Dichloropropane	BDL	61.3	1,3,5-Trimethylbenzene	BDL	61.3
1,3-Dichlorobenzene	BDL	61.3	1,3-Dichloropropane	BDL	61.3
1,4-Dichlorobenzene	BDL	61.3	2,2-Dichloropropane	BDL	61.3
2-Butanone	BDL	613	2-Chloroethylvinyl ether	BDL	3070
2-Hexanone	BDL	613	4-Methyl-2-pentanone	BDL	613
Acetone	2100	920	Acrolein	BDL	3070
Acrylonitrile	BDL	3070	Benzene	BDL	61.3
Bromobenzene	BDL	61.3	Bromochloromethane	BDL	61.3
Bromoform	BDL	61.3	Bromomethane	BDL	61.3
Carbon disulfide	BDL	61.3	Carbon tetrachloride	BDL	61.3
Chlorobenzene	BDL	61.3	Chloroethane	BDL	61.3
Chloroform	BDL	61.3	Chloromethane	BDL	61.3
Dibromochloromethane	BDL	61.3	Dibromomethane	BDL	61.3
Dichlorobromomethane	BDL	61.3	Dichlorodifluoromethane	BDL	61.3
Diethyl ether	BDL	307	Ethylbenzene	BDL	61.3
Ethylene dibromide	BDL	61.3	Hexachlorobutadiene	BDL	61.3
Isopropylbenzene	BDL	61.3	Methyl-t-butyl ether	BDL	61.3
Methylene chloride	BDL	61.3	Naphthalene	BDL	61.3
Styrene	BDL	61.3	Tetrachloroethene	BDL	61.3
Tetrahydrofuran(THF)	BDL	307	Toluene	BDL	61.3
Trichloroethene	BDL	61.3	Trichlorofluoromethane	BDL	61.3
Vinyl chloride	BDL	61.3	cis-1,2-Dichloroethene	BDL	61.3
cis-1,3-Dichloropropene	BDL	61.3	m/p-Xylenes	BDL	61.3
n-Butylbenzene	BDL	61.3	n-Propylbenzene	BDL	61.3
o-Chlorotoluene	BDL	61.3	o-Xylene	BDL	61.3
p-Chlorotoluene	BDL	61.3	p-Isopropyltoluene	BDL	61.3
sec-Butylbenzene	BDL	61.3	tert-Butylbenzene	BDL	61.3
trans-1,2-Dichloroethene	BDL	61.3	trans-1,3-Dichloropropene	BDL	61.3

EPA Method : SW-8260 Units: ug/kg

Client's Comments: ANALYSIS BY CHEMSERVE; LAB #B17-98-13

Analyst Comments: TWO LONG CHAIN HYDROCARBONS REORTED AS TICS

Report Comments: RESULTS REPORTED AS DRY WEIGHT; % SOLIDS= 16.3%

Measure date: 19-FEB-98

Authorized Signature: Patricia Bradford

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Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L57996-7
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/10/98 11:04
Log in Date : 02/10/98
Completion Date: 02/25/98

Site :
Sampler : ROBERT PETER
Locator : 4-DEERFIELD-SANBORN PILE
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	28.6	1,1,1-Trichloroethane	BDL	28.6
1,1,2,2-Tetrachloroethane	BDL	28.6	1,1,2-Trichloroethane	BDL	28.6
1,1-Dichloroethane	BDL	28.6	1,1-Dichloroethene	BDL	28.6
1,1-Dichloropropene	BDL	28.6	1,2,3-Trichlorobenzene	BDL	28.6
1,2,3-Trichloropropane	BDL	28.6	1,2,4-Trichlorobenzene	BDL	28.6
1,2,4-Trimethylbenzene	1700	28.6	1,2-Dibromo-3-chloropropane	BDL	28.6
1,2-Dichlorobenzene	BDL	28.6	1,2-Dichloroethane	BDL	28.6
1,2-Dichloropropane	BDL	28.6	1,3,5-Trimethylbenzene	650	28.6
1,3-Dichlorobenzene	BDL	28.6	1,3-Dichloropropane	BDL	28.6
1,4-Dichlorobenzene	BDL	28.6	2,2-Dichloropropane	BDL	28.6
2-Butanone	BDL	28.6	2-Chloroethylvinyl ether	BDL	28.6
2-Hexanone	BDL	28.6	4-Methyl-2-pentanone	BDL	28.6
Acetone	530	28.6	Acrolein	BDL	28.6
Acrylonitrile	BDL	28.6	Benzene	BDL	28.6
Bromobenzene	BDL	28.6	Bromochloromethane	BDL	28.6
Bromoform	BDL	28.6	Bromomethane	BDL	28.6
Carbon disulfide	BDL	28.6	Carbon tetrachloride	BDL	28.6
Chlorobenzene	BDL	28.6	Chloroethane	BDL	28.6
Chloroform	BDL	28.6	Chloromethane	BDL	28.6
Dibromochloromethane	BDL	28.6	Dibromomethane	BDL	28.6
Dichlorobromomethane	BDL	28.6	Dichlorodifluoromethane	BDL	28.6
Diethyl ether	BDL	28.6	Ethylbenzene	BDL	28.6
Ethylene dibromide	BDL	28.6	Hexachlorobutadiene	BDL	28.6
Isopropylbenzene	BDL	28.6	Methyl-t-butyl ether	BDL	28.6
Methylene chloride	BDL	28.6	Naphthalene	84	28.6
Styrene	BDL	28.6	Tetrachloroethene	BDL	28.6
Tetrahydrofuran(THF)	BDL	28.6	Toluene	2900	28.6
Trichloroethene	BDL	28.6	Trichlorofluoromethane	BDL	28.6
Vinyl chloride	BDL	28.6	cis-1,2-Dichloroethene	BDL	28.6
cis-1,3-Dichloropropene	BDL	28.6	m/p-Xylenes	73	28.6
n-Butylbenzene	BDL	28.6	n-Propylbenzene	BDL	28.6
o-Chlorotoluene	BDL	28.6	o-Xylene	32	28.6
p-Chlorotoluene	BDL	28.6	p-Isopropyltoluene	620	28.6
sec-Butylbenzene	BDL	28.6	tert-Butylbenzene	BDL	28.6
trans-1,2-Dichloroethene	BDL	28.6	trans-1,3-Dichloropropene	BDL	28.6

EPA Method : SW-8260 Units: ug/kg

Client's Comments: ANALYSIS BY CHEMSERVE; LAB# B17-98-13

Analyst Comments: SEVERAL ALKANES AND ALKENES REPORTED AS TICS

Report Comments: RESULTS REPORTED AS DRY WEIGHT; % SOLIDS= 34.9%

Measure date: 19-FEB-98

Authorized Signature: Patricia Bradley

State of New Hampshire
Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L58594-1
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 02/27/98 09:30
Log in Date : 02/27/98 14:03
Completion Date: 04/05/98

Locator : BIO FIX PILE,FARM A
Descript: SLUDGE
Site : BARNSTEAD
Sampler : ROB PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
FECAL COLIFORM MPN	<3.8	MPN/g		SM 18 9221 E

Authorized Signature: Patricia Buckford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L58594-2
Category: IN HOUSE
Matrix : Sludge
Collection Date: 02/27/98 09:30
Log in Date : 02/27/98 14:03
Completion Date: 04/05/98

Locator : BIO FIX PILE,FARM A
Descript: SLUDGE
Site : BARNSTEAD
Sampler : ROB PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
ARSENIC	**<10.**	mg/Kg	10	SW 3050/7060
CADMIUM	**<1.0**	mg/Kg	1	SW 3050/7131
LEAD	**12.3**	mg/Kg	5	SW 3050/7420
MERCURY	**<0.2**	mg/Kg	.2	SW-7471

Analyst Comments: ANALYSIS BY CHEMSERVE; #C13-98-08

Report Comments: REPORTED AS DRY WEIGHT; %SOLIDS= 50%

Measure date: 19-MAR-98

Authorized Signature: Patricia Bedford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

State of New Hampshire
Department of Environmental Services
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Results of Laboratory Analysis

Sample #: L58594-3
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 02/27/98 10:35
Log in Date : 02/27/98 14:03
Completion Date: 04/05/98

Locator : BIO FIX PILE,FARM B
Descript: SLUDGE
Site : EPSOM
Sampler : ROB PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
FECAL COLIFORM MPN	<4	MPN/g		SM 18 9221 E

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58594-4
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/27/98 11:45
Log in Date : 02/27/98
Completion Date: 04/05/98

Site : EPPING
Sampler : ROB PETER
Locator : FARM C
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	10	1,1,1-Trichloroethane	BDL	10
1,1,2,2-Tetrachloroethane	BDL	10	1,1,2-Trichloroethane	BDL	10
1,1-Dichloroethane	BDL	10	1,1-Dichloroethene	BDL	10
1,1-Dichloropropene	BDL	10	1,2,3-Trichlorobenzene	BDL	25
1,2,3-Trichloropropane	BDL	10	1,2,4-Trichlorobenzene	BDL	25
1,2,4-Trimethylbenzene	33	10	1,2-Dibromo-3-chloropropane	BDL	10
1,2-Dichlorobenzene	BDL	10	1,2-Dichloroethane	BDL	10
1,2-Dichloropropane	BDL	10	1,3,5-Trimethylbenzene	14	10
1,3-Dichlorobenzene	BDL	10	1,3-Dichloropropane	BDL	10
1,4-Dichlorobenzene	18	10	2,2-Dichloropropane	BDL	10
2-Butanone	380	50	2-Hexanone	BDL	50
4-Methyl-2-pentanone	BDL	50	Acetone	870	50
Benzene	BDL	10	Bromobenzene	BDL	10
Bromochloromethane	BDL	10	Bromoform	BDL	10
Bromomethane	BDL	25	Carbon disulfide	BDL	10
Carbon tetrachloride	BDL	10	Chlorobenzene	BDL	10
Chloroethane	BDL	10	Chloroform	BDL	10
Chloromethane	BDL	25	Dibromochloromethane	BDL	10
Dibromomethane	BDL	10	Dichlorobromomethane	BDL	10
Dichlorodifluoromethane	BDL	25	Diethyl ether	BDL	10
Ethylbenzene	BDL	10	Ethylene dibromide	BDL	10
Hexachlorobutadiene	BDL	25	Isopropylbenzene	BDL	10
Methyl-t-butyl ether	BDL	10	Methylene chloride	BDL	10
Naphthalene	BDL	25	Styrene	BDL	10
Tetrachloroethene	BDL	10	Tetrahydrofuran(THF)	BDL	50
Toluene	29	10	Trichloroethene	BDL	10
Trichlorofluoromethane	BDL	10	Vinyl chloride	BDL	25
cis-1,2-Dichloroethene	BDL	10	cis-1,3-Dichloropropene	BDL	10
m/p-Xylenes	BDL	10	n-Butylbenzene	BDL	10
n-Propylbenzene	BDL	10	o-Chlorotoluene	BDL	10
o-Xylene	BDL	10	p-Chlorotoluene	BDL	10
p-Isopropyltoluene	68	10	sec-Butylbenzene	BDL	10
tert-Butylbenzene	BDL	10	trans-1,2-Dichloroethene	BDL	10
trans-1,3-Dichloropropene	BDL	10			

EPA Method : SW-8260 Units: ug/kg

Analyst Comments: tentatively identified: dimethyl sulfides 3100 ug/Kg; limonene 400 ug/Kg;

Report Comments: aliphatic hydrocarbons present.

Measure date: 05-MAR-98

Authorized Signature: Patricia Bedford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58594-5
Category: IN HOUSE
Matrix : Sludge
Collection Date: 02/27/98 12:25
Log in Date : 02/27/98 14:03
Completion Date: 04/05/98

Locator : FARM D
Descript: SLUDGE
Site : EPPING
Sampler : ROB PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
ARSENIC	**<32.9**	mg/Kg	32.9	SW 3050/7060
CADMIUM	**<3.29**	mg/Kg	3.29	SW 3050/7131
CHROMIUM	**28.2**	mg/Kg	3.29	SW 3050/6010
COPPER	**498**	mg/Kg	3.29	SW 3050/6010
LEAD	**91.4**	mg/Kg	16.4	SW 3050/7420
MERCURY	**<0.7**	mg/Kg	.7	SW-7471
MOLYBDENUM	**5.57**	mg/Kg	3.29	SW3050/6010
NICKEL	**23.7**	mg/Kg	3.29	SW 3050/6010
SELENIUM	**<32.9**	mg/Kg	32.9	SW 3050/7740
ZINC	**300**	mg/Kg	3.29	SW 3050/6010

Analyst Comments: ANALYSIS BY CHEMSERVE; #C13-98-08

Report Comments: REPORTED AS DRY WEIGHT; &SOLIDS 15.2%

Measure date: 19-MAR-98

Authorized Signature: Patricia Buckford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58594-6
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/27/98 12:31
Log in Date : 02/27/98
Completion Date: 04/05/98

Site : EPPING
Sampler : ROB PETER
Locator : FARM D
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	17	1,1,1-Trichloroethane	BDL	17
1,1,2,2-Tetrachloroethane	BDL	17	1,1,2-Trichloroethane	BDL	17
1,1-Dichloroethane	BDL	17	1,1-Dichloroethene	BDL	17
1,1-Dichloropropene	BDL	17	1,2,3-Trichlorobenzene	BDL	51
1,2,3-Trichloropropane	BDL	17	1,2,4-Trichlorobenzene	BDL	51
1,2,4-Trimethylbenzene	BDL	17	1,2-Dibromo-3-chloropropane	BDL	17
1,2-Dichlorobenzene	30	17	1,2-Dichloroethane	BDL	17
1,2-Dichloropropane	BDL	17	1,3,5-Trimethylbenzene	BDL	17
1,3-Dichlorobenzene	BDL	17	1,3-Dichloropropane	BDL	17
1,4-Dichlorobenzene	240	17	2,2-Dichloropropane	BDL	17
2-Butanone	180	85	2-Hexanone	BDL	85
4-Methyl-2-pentanone	BDL	85	Acetone	150	85
Benzene	BDL	17	Bromobenzene	BDL	17
Bromochloromethane	BDL	17	Bromoform	BDL	17
Bromomethane	BDL	42.5	Carbon disulfide	BDL	17
Carbon tetrachloride	BDL	17	Chlorobenzene	BDL	17
Chloroethane	BDL	17	Chloroform	BDL	17
Chloromethane	BDL	42.5	Dibromochloromethane	BDL	17
Dibromomethane	BDL	17	Dichlorobromomethane	BDL	17
Dichlorodifluoromethane	BDL	42.5	Diethyl ether	BDL	17
Ethylbenzene	BDL	17	Ethylene dibromide	BDL	17
Hexachlorobutadiene	BDL	51	Isopropylbenzene	BDL	17
Methyl-t-butyl ether	BDL	17	Methylene chloride	BDL	17
Naphthalene	BDL	51	Styrene	BDL	17
Tetrachloroethene	BDL	17	Tetrahydrofuran(THF)	BDL	85
Toluene	79	17	Trichloroethene	BDL	17
Trichlorofluoromethane	BDL	17	Vinyl chloride	BDL	42.5
cis-1,2-Dichloroethene	BDL	17	cis-1,3-Dichloropropene	BDL	17
m/p-Xylenes	BDL	17	n-Butylbenzene	BDL	17
n-Propylbenzene	BDL	17	o-Chlorotoluene	BDL	17
o-Xylene	BDL	17	p-Chlorotoluene	BDL	17
p-Isopropyltoluene	140	17	sec-Butylbenzene	BDL	17
tert-Butylbenzene	BDL	17	trans-1,2-Dichloroethene	BDL	17
trans-1,3-Dichloropropene	BDL	17			

EPA Method : SW-8260 Units: ug/kg

Analyst Comments: tentatively identified: methanethiol 2900 ug/Kg; dimethyl sulfides 23000 ug/Kg;

Report Comments: limonene 1100 ug/Kg; aliphatic hydrocarbons present.

Measure date: 05-MAR-98

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58594-7
Category: IN HOUSE
Matrix : Sludge
Collection Date: 02/27/98 12:45
Log in Date : 02/27/98 14:03
Completion Date: 04/05/98

Locator : FARM E
Descript: SLUDGE
Site : EPPING
Sampler : ROB PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
ARSENIC	**<32.9**	mg/Kg	32.9	SW 3050/7060
CADMIUM	**<3.29**	mg/Kg	3.29	SW 3050/7131
CHROMIUM	**34.5**	mg/Kg	3.29	SW 3050/6010
COPPER	**494**	mg/Kg	3.29	SW 3050/6010
LEAD	**95.6**	mg/Kg	16.4	SW 3050/7420
MERCURY	**<0.7**	mg/Kg	.7	SW-7471
MOLYBDENUM	**8.56**	mg/Kg	3.29	SW3050/6010
NICKEL	**13.8**	mg/Kg	3.29	SW 3050/6010
SELENIUM	**<32.9**	mg/Kg	32.9	SW 3050/7740
ZINC	**288**	mg/Kg	3.29	SW 3050/6010

Analyst Comments: ANALYSIS BY CHEMSERVE; #C13-98-08

Report Comments: REPORTED AS DRY WEIGHT; % SOLIDS= 15.2%

Measure date: 19-MAR-98

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58594-8
Category: IN HOUSE
Matrix : Soil
Collection Date: 02/27/98 12:45
Log in Date : 02/27/98
Completion Date: 04/05/98

Site : EPPING
Sampler : ROB PETER
Locator : FARM E
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	16.2	1,1,1-Trichloroethane	BDL	16.2
1,1,2,2-Tetrachloroethane	BDL	16.2	1,1,2-Trichloroethane	BDL	16.2
1,1-Dichloroethane	BDL	16.2	1,1-Dichloroethene	BDL	16.2
1,1-Dichloropropene	BDL	16.2	1,2,3-Trichlorobenzene	BDL	40.5
1,2,3-Trichloropropane	BDL	16.2	1,2,4-Trichlorobenzene	BDL	40.5
1,2,4-Trimethylbenzene	BDL	16.2	1,2-Dibromo-3-chloropropane	BDL	16.2
1,2-Dichlorobenzene	19	16.2	1,2-Dichloroethane	BDL	16.2
1,2-Dichloropropane	BDL	16.2	1,3,5-Trimethylbenzene	BDL	16.2
1,3-Dichlorobenzene	BDL	16.2	1,3-Dichloropropane	BDL	16.2
1,4-Dichlorobenzene	120	16.2	2,2-Dichloropropane	BDL	16.2
2-Butanone	BDL	81	2-Hexanone	BDL	81
4-Methyl-2-pentanone	BDL	81	Acetone	95	81
Benzene	BDL	16.2	Bromobenzene	BDL	16.2
Bromochloromethane	BDL	16.2	Bromoform	BDL	16.2
Bromomethane	BDL	40.5	Carbon disulfide	BDL	16.2
Carbon tetrachloride	BDL	16.2	Chlorobenzene	BDL	16.2
Chloroethane	BDL	16.2	Chloroform	BDL	16.2
Chloromethane	BDL	40.5	Dibromochloromethane	BDL	16.2
Dibromomethane	BDL	16.2	Dichlorobromomethane	BDL	16.2
Dichlorodifluoromethane	BDL	40.5	Diethyl ether	BDL	16.2
Ethylbenzene	BDL	16.2	Ethylene dibromide	BDL	16.2
Hexachlorobutadiene	BDL	40.5	Isopropylbenzene	BDL	16.2
Methyl-t-butyl ether	BDL	16.2	Methylene chloride	BDL	16.2
Naphthalene	BDL	40.5	Styrene	BDL	16.2
Tetrachloroethene	21	16.2	Tetrahydrofuran(THF)	BDL	81
Toluene	33	16.2	Trichloroethene	BDL	16.2
Trichlorofluoromethane	BDL	16.2	Vinyl chloride	BDL	40.5
cis-1,2-Dichloroethene	BDL	16.2	cis-1,3-Dichloropropene	BDL	16.2
m/p-Xylenes	BDL	16.2	n-Butylbenzene	BDL	16.2
n-Propylbenzene	BDL	16.2	o-Chlorotoluene	BDL	16.2
o-Xylene	BDL	16.2	p-Chlorotoluene	BDL	16.2
p-Isopropyltoluene	BDL	16.2	sec-Butylbenzene	BDL	16.2
tert-Butylbenzene	BDL	16.2	trans-1,2-Dichloroethene	BDL	16.2
trans-1,3-Dichloropropene	BDL	16.2			

EPA Method : SW-8260 Units: ug/kg

Analyst Comments: tentatively identified: methanethiol 1200 ug/Kg; dimethyl sulfides 13000 ug/Kg;

Report Comments: aliphatic hydrocarbons present

Measure date: 05-MAR-98

Authorized Signature: Patricia Buckley D

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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DEPT OF ENVIRONMENTAL SERVICES
APR - 7 1998

Results of Laboratory Analysis

Sample #: L58632-1
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 03/02/98 09:05
Log in Date : 03/02/98 11:44
Completion Date: 04/05/98

Locator : FARM A
Descript: SLUDGE
Site : BARNSTEAD
Sampler : ROBERT PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
FECAL COLIFORM MPN	<5.3	MPN/g		SM 18 9221 E

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58632-2
Category: IN HOUSE
Matrix : Sludge
Collection Date: 03/02/98 09:05
Log in Date : 03/02/98 11:44
Completion Date: 04/05/98

Locator : FARM A
Descript: SLUDGE
Site : BARNSTEAD
Sampler : ROBERT PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
ARSENIC	**<14.0**	mg/Kg	14	SW 3050/7060
CADMIUM	**1.74**	mg/Kg	1.4	SW 3050/7131
LEAD	**65.6**	mg/Kg	7	SW 3050/7420
MERCURY	**.3**	mg/Kg	.3	SW-7471

Analyst Comments: ANALYSIS BY CHEMSERVE; #C13-98-08

Report Comments: REPORTED AS DRY WEIGHT; % SOLIDS= 35.8%

Measure date: 19-MAR-98

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58632-3
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 03/02/98 09:40
Log in Date : 03/02/98 11:44
Completion Date: 04/05/98

Locator : FARM B
Descript: SLUDGE
Site : BARNSTEAD
Sampler : ROBERT PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
FECAL COLIFORM MPN	>=2963	MPN/g		SM 18 9221 E

Authorized Signature: Patricia Buckford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58632-4
Category: IN HOUSE
Matrix : Sludge
Collection Date: 03/02/98 09:40
Log in Date : 03/02/98 11:44
Completion Date: 04/05/98

Locator : FARM B
Descript: SLUDGE
Site : BARNSTEAD
Sampler : ROBERT PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
ARSENIC	**<7.54**	mg/Kg	7.54	SW 3050/7060
CADMIUM	**1.7**	mg/Kg	.75	SW 3050/7131
LEAD	**39.2**	mg/Kg	3.77	SW 3050/7420
MERCURY	**.5**	mg/Kg	.2	SW-7471

Analyst Comments: ANALYSIS BY CHEMSERVE; #C13-98-08

Report Comments: REPORTED AS DRY WEIGHT; %SOLIDS= 66.3%

Measure date: 19-MAR-98

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58632-5
Category: IN HOUSE
Matrix : Soil
Collection Date: 03/02/98 10:50
Log in Date : 03/02/98
Completion Date: 04/05/98

Site : LOUDON
Sampler : ROBERT PETER
Locator : PILE 1
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	5.6	1,1,1-Trichloroethane	BDL	5.6
1,1,2,2-Tetrachloroethane	BDL	5.6	1,1,2-Trichloroethane	BDL	5.6
1,1-Dichloroethane	BDL	5.6	1,1-Dichloroethene	BDL	5.6
1,1-Dichloropropene	BDL	5.6	1,2,3-Trichlorobenzene	BDL	14
1,2,3-Trichloropropane	BDL	5.6	1,2,4-Trichlorobenzene	BDL	14
1,2,4-Trimethylbenzene	BDL	5.6	1,2-Dibromo-3-chloropropane	BDL	5.6
1,2-Dichlorobenzene	BDL	5.6	1,2-Dichloroethane	BDL	5.6
1,2-Dichloropropane	BDL	5.6	1,3,5-Trimethylbenzene	BDL	5.6
1,3-Dichlorobenzene	BDL	5.6	1,3-Dichloropropane	BDL	5.6
1,4-Dichlorobenzene	BDL	5.6	2,2-Dichloropropane	BDL	5.6
2-Butanone	BDL	28	2-Hexanone	BDL	28
4-Methyl-2-pentanone	BDL	28	Acetone	98	28
Benzene	BDL	5.6	Bromobenzene	BDL	5.6
Bromochloromethane	BDL	5.6	Bromoform	BDL	5.6
Bromomethane	BDL	14	Carbon disulfide	21	5.6
Carbon tetrachloride	BDL	5.6	Chlorobenzene	BDL	5.6
Chloroethane	BDL	5.6	Chloroform	BDL	5.6
Chloromethane	BDL	14	Dibromochloromethane	BDL	5.6
Dibromomethane	BDL	5.6	Dichlorobromomethane	BDL	5.6
Dichlorodifluoromethane	BDL	14	Diethyl ether	BDL	5.6
Ethylbenzene	BDL	5.6	Ethylene dibromide	BDL	5.6
Hexachlorobutadiene	BDL	14	Isopropylbenzene	BDL	5.6
Methyl-t-butyl ether	BDL	5.6	Methylene chloride	BDL	5.6
Naphthalene	BDL	14	Styrene	BDL	5.6
Tetrachloroethene	BDL	5.6	Tetrahydrofuran(THF)	BDL	28
Toluene	BDL	5.6	Trichloroethene	BDL	5.6
Trichlorofluoromethane	BDL	5.6	Vinyl chloride	BDL	14
cis-1,2-Dichloroethene	BDL	5.6	cis-1,3-Dichloropropene	BDL	5.6
m/p-Xylenes	BDL	5.6	n-Butylbenzene	BDL	5.6
n-Propylbenzene	BDL	5.6	o-Chlorotoluene	BDL	5.6
o-Xylene	BDL	5.6	p-Chlorotoluene	BDL	5.6
p-Isopropyltoluene	22	5.6	sec-Butylbenzene	BDL	5.6
tert-Butylbenzene	BDL	5.6	trans-1,2-Dichloroethene	BDL	5.6
trans-1,3-Dichloropropene	BDL	5.6			

EPA Method : SW-8260 Units: ug/kg

Analyst Comments: tentatively identified: dimethyl disulfide 37 ug/Kg; limonene 64 ug/Kg;

Report Comments: aliphatic hydrocarbons present.

Measure date: 05-MAR-98

Authorized Signature: Patricia Buckford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58632-6
Category: IN HOUSE
Matrix : Soil
Collection Date: 03/02/98 10:55
Log in Date : 03/02/98
Completion Date: 04/05/98

Site : LOUDON
Sampler : ROBERT PETER
Locator : PILE 2
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	28	1,1,1-Trichloroethane	BDL	28
1,1,2,2-Tetrachloroethane	BDL	28	1,1,2-Trichloroethane	BDL	28
1,1-Dichloroethane	BDL	28	1,1-Dichloroethene	BDL	28
1,1-Dichloropropene	BDL	28	1,2,3-Trichlorobenzene	BDL	28
1,2,3-Trichloropropane	BDL	28	1,2,4-Trichlorobenzene	BDL	28
1,2,4-Trimethylbenzene	BDL	28	1,2-Dibromo-3-chloropropane	BDL	28
1,2-Dichlorobenzene	BDL	28	1,2-Dichloroethane	BDL	28
1,2-Dichloropropane	BDL	28	1,3,5-Trimethylbenzene	BDL	28
1,3-Dichlorobenzene	BDL	28	1,3-Dichloropropane	BDL	28
1,4-Dichlorobenzene	BDL	28	2,2-Dichloropropane	BDL	28
2-Butanone	320	140	2-Hexanone	BDL	140
4-Methyl-2-pentanone	BDL	140	Acetone	9400	588
Benzene	BDL	28	Bromobenzene	BDL	28
Bromochloromethane	BDL	28	Bromoform	BDL	28
Bromomethane	BDL	70	Carbon disulfide	BDL	28
Carbon tetrachloride	BDL	28	Chlorobenzene	BDL	28
Chloroethane	BDL	28	Chloroform	BDL	28
Chloromethane	BDL	70	Dibromochloromethane	BDL	28
Dibromomethane	BDL	28	Dichlorobromomethane	BDL	28
Dichlorodifluoromethane	BDL	70	Diethyl ether	BDL	28
Ethylbenzene	BDL	28	Ethylene dibromide	BDL	28
Hexachlorobutadiene	BDL	28	Isopropylbenzene	BDL	28
Methyl-t-butyl ether	BDL	28	Methylene chloride	BDL	28
Naphthalene	BDL	28	Styrene	BDL	28
Tetrachloroethene	BDL	28	Tetrahydrofuran(THF)	BDL	140
Toluene	BDL	28	Trichloroethene	BDL	28
Trichlorofluoromethane	BDL	28	Vinyl chloride	BDL	70
cis-1,2-Dichloroethene	BDL	28	cis-1,3-Dichloropropene	BDL	28
m/p-Xylenes	BDL	28	n-Butylbenzene	BDL	28
n-Propylbenzene	BDL	28	o-Chlorotoluene	BDL	28
o-Xylene	BDL	28	p-Chlorotoluene	BDL	28
p-Isopropyltoluene	BDL	28	sec-Butylbenzene	BDL	28
tert-Butylbenzene	BDL	28	trans-1,2-Dichloroethene	BDL	28
trans-1,3-Dichloropropene	BDL	28			

EPA Method : SW-8260 Units: ug/kg

Measure date: 06-MAR-98

Authorized Signature: Patricia Bedford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L58632-7
Category: IN HOUSE
Matrix : Soil
Collection Date: 03/02/98 11:03
Log in Date : 03/02/98
Completion Date: 04/05/98

Site : LOUDON
Sampler : ROBERT PETER
Locator : PILE 3
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	9.4	1,1,1-Trichloroethane	BDL	9.4
1,1,2,2-Tetrachloroethane	BDL	9.4	1,1,2-Trichloroethane	BDL	9.4
1,1-Dichloroethane	BDL	9.4	1,1-Dichloroethene	BDL	9.4
1,1-Dichloropropene	BDL	9.4	1,2,3-Trichlorobenzene	BDL	9.4
1,2,3-Trichloropropane	BDL	9.4	1,2,4-Trichlorobenzene	BDL	9.4
1,2,4-Trimethylbenzene	BDL	9.4	1,2-Dibromo-3-chloropropane	BDL	9.4
1,2-Dichlorobenzene	BDL	9.4	1,2-Dichloroethane	BDL	9.4
1,2-Dichloropropane	BDL	9.4	1,3,5-Trimethylbenzene	BDL	9.4
1,3-Dichlorobenzene	BDL	9.4	1,3-Dichloropropane	BDL	9.4
1,4-Dichlorobenzene	BDL	9.4	2,2-Dichloropropane	BDL	9.4
2-Butanone	BDL	47	2-Hexanone	BDL	47
4-Methyl-2-pentanone	BDL	47	Acetone	110	47
Benzene	BDL	9.4	Bromobenzene	BDL	9.4
Bromochloromethane	BDL	9.4	Bromoform	BDL	9.4
Bromomethane	BDL	23.5	Carbon disulfide	BDL	9.4
Carbon tetrachloride	BDL	9.4	Chlorobenzene	BDL	9.4
Chloroethane	BDL	9.4	Chloroform	BDL	9.4
Chloromethane	BDL	23.5	Dibromochloromethane	BDL	9.4
Dibromomethane	BDL	9.4	Dichlorobromomethane	BDL	9.4
Dichlorodifluoromethane	BDL	23.5	Diethyl ether	BDL	9.4
Ethylbenzene	BDL	9.4	Ethylene dibromide	BDL	9.4
Hexachlorobutadiene	BDL	9.4	Isopropylbenzene	BDL	9.4
Methyl-t-butyl ether	BDL	9.4	Methylene chloride	BDL	9.4
Naphthalene	BDL	9.4	Styrene	BDL	9.4
Tetrachloroethene	BDL	9.4	Tetrahydrofuran(THF)	BDL	47
Toluene	BDL	9.4	Trichloroethene	BDL	9.4
Trichlorofluoromethane	BDL	9.4	Vinyl chloride	BDL	23.5
cis-1,2-Dichloroethene	BDL	9.4	cis-1,3-Dichloropropene	BDL	9.4
m/p-Xylenes	BDL	9.4	n-Butylbenzene	BDL	9.4
n-Propylbenzene	BDL	9.4	o-Chlorotoluene	BDL	9.4
o-Xylene	BDL	9.4	p-Chlorotoluene	BDL	9.4
p-Isopropyltoluene	BDL	9.4	sec-Butylbenzene	BDL	9.4
tert-Butylbenzene	BDL	9.4	trans-1,2-Dichloroethene	BDL	9.4
trans-1,3-Dichloropropene	BDL	9.4			

EPA Method : SW-8260 Units: ug/kg

Analyst Comments: aliphatic hydrocarbons present.

Measure date: 11-MAR-98

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L60463-1
Category: IN HOUSE
Matrix : Sludge
Collection Date: 04/16/98 08:00
Log in Date : 04/17/98 09:24
Completion Date: 06/24/98

Locator : EVANS, MADBURY
Descript: SLUDGE
Site : FRANKLIN
Sampler : J HERRICK
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
ARSENIC	**<10.**	mg/Kg	10	SW 3050/7060
CADMIUM	**8.12**	mg/Kg	1	SW 3050/7131
LEAD	**102**	mg/Kg	10	SW 3050/7420
MERCURY	**2.6**	mg/Kg	.2	SW-7471

Analyst Comments: ANALYSIS BY CHEMSERVE, #98050272

Report Comments: RESULTS REPORTED AS DRY WEIGHT; % SOLIDS= 51.72%

Measure date: 11-JUN-98

Authorized Signature: Garry Haworth

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L71338-1
Category: IN HOUSE
Matrix : Soil
Collection Date: 10/16/98 13:45
Log in Date : 10/16/98 15:48
Completion Date: 11/09/98

Locator : PENACOOK CONCORD SLUDGE
Descript: SLUDGE
Site : CONCORD
Sampler : ROBERT PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
ARSENIC	5.8	mg/Kg	.8	
CADMIUM	<3.26	mg/Kg	1	
CHROMIUM	45.9	mg/Kg	1.5	
COPPER	298	mg/Kg	2.5	
LEAD	54	mg/Kg	.5	
MERCURY	2.52	mg/Kg	.04	
MOLYBDENUM	<32.6	mg/Kg	10	
NICKEL	25.4	mg/Kg	4	
SELENIUM	3.6	mg/Kg	1	
ZINC	635	mg/Kg	2.5	

Client's Comments: MORRILL FARM

Analyst Comments: ANALYSIS BY KATAHDIN ANALYTICAL; #WO-3219-1.

Report Comments: RESULTS REPORTED AS DRY WEIGHT;26% TOTAL SOLIDS

Measure date: 23-OCT-98

Authorized Signature: Patricia Bedford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L71338-2
Category: IN HOUSE
Matrix : Soil
Collection Date: 10/16/98 14:05
Log in Date : 10/16/98 15:48
Completion Date: 11/09/98

Locator : PENACOOK FRANKLIN SLUDGE LT
Descript: SLUDGE
Site : CONCORD
Sampler : ROBERT PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
ARSENIC	5.6	mg/Kg	.8	
CADMIUM	<4.68	mg/Kg	1	
CHROMIUM	13.2	mg/Kg	1.5	
COPPER	496	mg/Kg	2.5	
LEAD	33	mg/Kg	.5	
MERCURY	1.87	mg/Kg	.04	
MOLYBDENUM	<46.8	mg/Kg	10	
NICKEL	<18.7	mg/Kg	4	
SELENIUM	<4.7	mg/Kg	1	
ZINC	385	mg/Kg	2.5	

Client's Comments: MORRILL FARM

Analyst Comments: ANALYSIS BY KATAHDIN ANALYTICAL; #WO-321902

Report Comments: RESULTS REPORTED AS DRY WEIGHT; 17% TOTAL SOLIDS.

Measure date: 23-OCT-98

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L71338-3
Category: IN HOUSE
Matrix : Soil
Collection Date: 10/16/98 14:05
Log in Date : 10/16/98 15:48
Completion Date: 11/09/98

Locator : PENACOOK FRANKLIN SLUDGE BK
Descript: SLUDGE
Site : CONCORD
Sampler : ROBERT PETER
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
ARSENIC	9.4	mg/Kg	.8	
CADMIUM	5.29	mg/Kg	1	
CHROMIUM	54.3	mg/Kg	1.5	
COPPER	1250	mg/Kg	2.5	
LEAD	156	mg/Kg	.5	
MERCURY	2.89	mg/Kg	.04	
MOLYBDENUM	<46.8	mg/Kg	10	
NICKEL	46.8	mg/Kg	4	
SELENIUM	9.8	mg/Kg	1	
ZINC	1930	mg/Kg	2.5	

Client's Comments: MORRILL FARM

Analyst Comments: ANALYSIS BY KATAHDIN ANALYTICAL; WO-3219-3

Report Comments: RESULTS REPORTED AS DRY WEIGHT; 21% TOTAL SOLIDS.

Measure date: 23-OCT-98

Authorized Signature: Patricia Bradford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Decection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L71790-1
Category: IN HOUSE
Matrix : Sludge
Collection Date: 10/27/98 11:02
Log in Date : 10/27/98 13:53
Completion Date: 12/17/98

Locator : GILMANTON MEETINGHOUSE FIELD
Descript: SLUDGE
Site : GILMANTON
Sampler : ROB PETER, ANDREA BOWMAN
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
% SOLIDS	33	%		
ARSENIC	4.08	mg/Kg		
CADMIUM	4.65	mg/Kg		
CHROMIUM	26.5	mg/Kg		
COPPER	421	mg/Kg		
LEAD	71.4	mg/Kg		
MERCURY	<10	mg/Kg		
MOLYBDENUM	<35	mg/Kg		
NICKEL	35.8	mg/Kg		
SELENIUM	<18	mg/Kg		
SOLID SAMPLE PREPARATION	DIGESTED-RESULTS AS DRY WEIGHT			
ZINC	553	mg/Kg		

Client's Comments: COMPOSITE OF 8 GRABS, CLASS B SLUDGE

Authorized Signature: Gary Hall

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

Sample #: L71965-1
Category: IN HOUSE
Matrix : Soil
Collection Date: 10/30/98 15:00
Log in Date : 11/02/98 08:21
Completion Date: 12/17/98

Locator : HANSON'S HOME FIELD
Descript: SLUDGE
Site : CTR HARBOR
Sampler : ROB PETER/ANDREA BOWMAN
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
% SOLIDS	36	%		
ARSENIC	3.73	mg/Kg		
CADMIUM	15	mg/Kg		
CHROMIUM	25.2	mg/Kg		
COPPER	586	mg/Kg		
LEAD	120	mg/Kg		
MERCURY	<10	mg/Kg		
MOLYBDENUM	<35	mg/Kg		
NICKEL	24.6	mg/Kg		
SELENIUM	<23	mg/Kg		
SOLIDS PREPARATION	DIGESTED - RESULTS AS DRY WEIGHT			
ZINC	1234	mg/Kg		

Authorized Signature: Gary Hanson

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

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Results of Laboratory Analysis

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SURFACE WATER QUALITY BUREAU

Sample #: L72061-1
Category: IN HOUSE
Matrix : Soil
Collection Date: 11/03/98 09:45
Log in Date : 11/03/98
Completion Date: 11/23/98

Site : HOOKSETT
Sampler : ANDREA BOWMAN
Locator : MANCHESTER SAND & GRAVEL
Descript : SLUDGE
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	RDL	Analyte	Results	RDL
1,1,1,2-Tetrachloroethane	BDL	2.2	1,1,1-Trichloroethane	BDL	2.2
1,1,2,2-Tetrachloroethane	BDL	2.2	1,1,2-Trichloroethane	BDL	2.2
1,1-Dichloroethane	BDL	2.2	1,1-Dichloroethene	BDL	2.2
1,1-Dichloropropene	BDL	2.2	1,2,3-Trichlorobenzene	BDL	2.2
1,2,3-Trichloropropane	BDL	2.2	1,2,4-Trichlorobenzene	BDL	2.2
1,2,4-Trimethylbenzene	BDL	2.2	1,2-Dichlorobenzene	BDL	2.2
1,2-Dichloroethane	BDL	2.2	1,2-Dichloropropane	BDL	2.2
1,3,5-Trimethylbenzene	BDL	2.2	1,3-Dichlorobenzene	BDL	2.2
1,3-Dichloropropane	BDL	2.2	1,4-Dichlorobenzene	BDL	2.2
2,2-Dichloropropane	BDL	2.2	2-Butanone	BDL	11
2-Hexanone	BDL	11	4-Methyl-2-pentanone	BDL	11
Acetone	BDL	11	Benzene	BDL	2.2
Bromobenzene	BDL	2.2	Bromochloromethane	BDL	2.2
Bromoform	BDL	2.2	Bromomethane	BDL	5.5
Carbon disulfide	BDL	2.2	Carbon tetrachloride	BDL	2.2
Chlorobenzene	BDL	2.2	Chloroethane	BDL	2.2
Chloroform	BDL	2.2	Chloromethane	BDL	5.5
cis-1,2-Dichloroethene	BDL	2.2	cis-1,3-Dichloropropene	BDL	2.2
1,2-Dibromo-3-chloropropane	BDL	2.2	Dibromochloromethane	BDL	2.2
Dibromomethane	BDL	2.2	Dichlorobromomethane	BDL	2.2
Dichlorodifluoromethane	BDL	5.5	Diethyl ether	BDL	2.2
Ethylene dibromide	BDL	2.2	Ethylbenzene	BDL	2.2
Hexachlorobutadiene	BDL	2.2	Isopropylbenzene	BDL	2.2
m/p-Xylenes	BDL	2.2	Methyl-t-butyl ether	BDL	2.2
Methylene chloride	3.5	2.2	n-Butylbenzene	BDL	2.2
n-Propylbenzene	BDL	2.2	Naphthalene	BDL	2.2
o-Chlorotoluene	BDL	2.2	o-Xylene	BDL	2.2
p-Chlorotoluene	BDL	2.2	p-Isopropyltoluene	BDL	2.2
sec-Butylbenzene	BDL	2.2	Styrene	BDL	2.2
tert-Butylbenzene	BDL	2.2	Tetrachloroethene	BDL	2.2
Tetrahydrofuran(THF)	BDL	11	Toluene	BDL	2.2
trans-1,2-Dichloroethene	BDL	2.2	trans-1,3-Dichloropropene	BDL	2.2
Trichloroethene	BDL	2.2	Trichlorofluoromethane	BDL	2.2
Vinyl chloride	BDL	5.5			

EPA Method : SW-8260 Units: ug/kg

Analyst Comments: METHYLENE CHLORIDE PROBABLY LAB CONTAMINATION.

Report Comments: RESULTS REPORTED AS DRY WEIGHT; 81.2% SOLIDS.

Measure date: 09-NOV-98

Authorized Signature: Patricia Bickford

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL=Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
MCL=Maximum Contaminent Level

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent
J =Approximate Level

State of New Hampshire
Department of Environmental Services
6 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3445/3446

Results of Laboratory Analysis

Sample #: L72285-1
Category: IN HOUSE
Matrix : Sludge
Collection Date: 11/06/98 13:12
Log in Date : 11/06/98 15:16
Completion Date: 12/17/98

Locator : HUSSEY FARM
Descript: SLUDGE
Site : CONWAY
Sampler : ANDREA BOWMAN
Account #: 05-04-05
Project #: 05-0022595

SLUDGE

Analyte	Results	Units	RDL	EPA Method
% SOLIDS	20	%		
ARSENIC	11	mg/Kg		
CADMIUM	<6.9	mg/Kg		
CHROMIUM	39.9	mg/Kg		
COPPER	312	mg/Kg		
LEAD	<140	mg/Kg		
MERCURY	12.1	mg/Kg		
MOLYBDENUM	<35	mg/Kg		
NICKEL	<35	mg/Kg		
SELENIUM	<68	mg/Kg		
SOLID SAMPLE PREPARATION	DIGESTED-RESULTS AS DRY WEIGHT			
ZINC	364	mg/Kg		

Client's Comments: COMPOSITE OF 9 "GRABS" OF SOLIDS

Analyst Comments: Severe matrix effect on Selenium

Authorized Signature: Larry Harriott

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit
ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram
> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

RECEIVED
DEC 22 1998
SURFACE WATER QUALITY BUREAU

Voting Sheets

HOUSE COMMITTEE ON ENVIRONMENT AND AGRICULTURE

EXECUTIVE SESSION on HB 1201

BILL TITLE: **creating a committee to study incentives for regionalization of sludge and septage facilities.**

DATE: **February 22, 2000**

LOB ROOM: **303**

Amendments:

Sponsor: Rep. _____ OLS Document #: _____ Adopted/Failed

Sponsor: Rep. _____ OLS Document #: _____ Adopted/Failed

Sponsor: Rep. _____ OLS Document #: _____ Adopted/Failed

Motions: OTP, OTP/A, ITL, Re-Refer, Interim Study (Please circle one.)

Moved by Rep. Philbrick

Seconded by Rep. Dunlap

Vote: 14-0 (Please attach record of roll call vote.)

Motions: OTP, OTP/A, ITL, Re-Refer, Interim Study (Please circle one.)

Moved by Rep. _____

Seconded by Rep. _____

Vote: _____ (Please attach record of roll call vote.)

CONSENT CALENDAR VOTE: _____

(Vote to place on Consent Calendar must be unanimous.)

Statement of Intent: Refer to Committee Report

Respectfully submitted,

Karen K. McRae

Rep. Karen K. McRae, Clerk

HOUSE COMMITTEE ON ENVIRONMENT AND AGRICULTURE

EXECUTIVE SESSION on HB 1201

BILL TITLE: **creating a committee to study incentives for regionalization of sludge and septage facilities.**

DATE: 2-22-2000

LOB ROOM: **303**

Amendments:

Sponsor: Rep. _____ OLS Document #: _____ Adopted/Failed

Sponsor: Rep. _____ OLS Document #: _____ Adopted/Failed

Sponsor: Rep. _____ OLS Document #: _____ Adopted/Failed

Motions: OTP, OTP/A, ITL, Re-Refer, (Interim Study) (Please circle one.)

Moved by Rep. Philbrick

Seconded by Rep. Dunlap

Vote: 14-0 (Please attach record of roll call vote.)

Motions: OTP, OTP/A, ITL, Re-Refer, Interim Study (Please circle one.)

Moved by Rep. _____

Seconded by Rep. _____

Vote: _____ (Please attach record of roll call vote.)

CONSENT CALENDAR VOTE: _____

(Vote to place on Consent Calendar must be unanimous.)

Statement of Intent: Refer to Committee Report

Respectfully submitted,

Karen K McRae

Rep. Karen K. McRae, Clerk

OFFICE OF THE HOUSE CLERK 2000 SESSION

ENVIRONMENT AND AGRICULTURE

Bill #: HB 1201 **Title:** _____

PH Date: ____/____/____ **Exec Session Date:** 2/22/2000

Motion: Interim Study **Amendment #:** _____

MEMBER	YEAS	NAYS
Musler, George T, Chairman		
Leishman, Peter R, V Chairman	✓	
Messier, Irene M	✓	
Pratt, Leighton C		
McRae, Karen K, Clerk	✓	
Philbrick, Donald R	✓	
Babson, David L	✓	
Phinney, William R	✓	
Marshall, Kenneth R	✓	
Dunlap, Patricia C	✓	
Franks, Suzan L R	✓	
Scanlan, David M		
Cobb, John S	✓	
Harmon, Hobart M		
Hall, Betty B	✓	
Owen, Derek	✓	
Melcher, Harold P		
Meader, David R	✓	
Phinizy, James		
Shelton, Richard C	✓	
Tuthill, John G	✓	
Vaillancourt, Steve		
	14	0

TOTAL VOTE:
Printed: 2/15/2000

Committee Report

COMMITTEE REPORT

COMMITTEE: **Environment and Agriculture**

BILL NUMBER: **HB 1201**

TITLE: creating a committee to study incentives for regionalization of sludge and septage facilities.

DATE: February 22, 2000 CONSENT CALENDAR YES ☐ NO ☒

☐ OUGHT TO PASS

☐ OUGHT TO PASS WITH AMENDMENT

☐ INEXPEDIENT TO LEGISLATE

☐ RE-REFER

☒ REFER TO COMMITTEE FOR INTERIM STUDY
(Available only in second year of biennium.)

STATEMENT OF INTENT
(Include Committee Vote)

The Environment & Agriculture Committee recognizes the importance of looking closely at the issue of sludge and septage. At this time we need to consider and try to find solutions to the issue that will be acceptable in the long term. Cities and towns with wastewater treatment plants need to know where the sludge may be disposed and there is a need to look at the raw septage that is pumped from residential tanks and where that will be processed.

Vote 14-0.

Rep. Donald R. Philbrick
FOR THE COMMITTEE

Original: House Clerk
cc: Committee Bill file

USE ANOTHER REPORT FOR MINORITY REPORT

CONSENT CALENDAR

Environment and Agriculture

HB 1201, creating a committee to study incentives for regionalization of sludge and septage facilities. REFER TO COMMITTEE FOR INTERIM STUDY

Rep. Donald R. Philbrick for Environment and Agriculture: The Environment & Agriculture Committee recognizes the importance of looking closely at the issue of sludge and septage. At this time we need to consider and try to find solutions to the issue that will be acceptable in the long term. Cities and towns with wastewater treatment plants need to know where the sludge may be disposed and there is a need to look at the raw septage that is pumped from residential tanks and where that will be processed. Vote 14-0.

HB 1201

THE ENVIRONMENT AND AGRICULTURE COMMITTEE ~~FULLY~~ RECOGNIZES THE IMPORTANCE OF LOOKING ~~VERY~~ CLOSELY AT THE ISSUE OF SLUDGE AND SEPTAGE. AT THIS TIME WE NEED TO ~~LOOK AHEAD~~ CONSIDER AND TRY TO FIND SOLUTIONS ~~TO THE ISSUE~~ THAT WILL BE ACCEPTABLE IN THE LONG TERM. ~~CITIES~~ CITIES AND TOWNS WITH WASTEWATER TREATMENT PLANTS NEED TO KNOW WHERE THE SLUDGE MAY BE DISPOSED ~~AS~~ and ~~WE ALSO~~ think we also NEED TO LOOK AT THE RAW SEPTAGE THAT IS ~~NOW~~ PUMPED FROM RESIDENTIAL TANKS AND WHERE THAT WILL BE PROCESSED. ~~THE CHAIRMAN OF ENVIRONMENT AND AGRICULTURE HAS APPOINTED A SUBCOMMITTEE AND CHARGED THEM WITH COMING BACK WITH RECOMMENDATIONS IF REGIONALIZATION APPEARS TO BE A SOLUTION THEN THAT WILL BE PURSUED.~~

VOTE 14-0

DONALD R PHICBRICK

COMMITTEE REPORT

COMMITTEE: **ENVIRONMENT AND AGRICULTURE**

BILL NUMBER: **HB 1201**

TITLE: creating a committee to study incentives for regionalization of sludge and septage facilities.

DATE: 2-22-2000 CONSENT CALENDAR YES ☒ NO ☐

☐ OUGHT TO PASS

☐ OUGHT TO PASS WITH AMENDMENT

☐ INEXPEDIENT TO LEGISLATE

☐ RE-REFER

☒ REFER TO COMMITTEE FOR INTERIM STUDY
(Available only in second year of biennium.)

STATEMENT OF INTENT
(Include Committee Vote)

Vote 14-0.

Rep._____
FOR THE COMMITTEE

Original: House Clerk
cc: Committee Bill file

USE ANOTHER REPORT FOR MINORITY REPORT

INTERIM STUDY
COMMITTEE REPORT

COMMITTEE: ENVIRONMENT & AGRICULTURE

BILL NUMBER: HB 1201

TITLE: creating a committee to study incentives for regionalization of sludge and septage facilities.

DATE: 30 OCTOBER 2000

☒ **RECOMMENDED FOR FUTURE LEGISLATION**

LSR No._____

(If legislation is already filed, please list LSR no.)

☐ **NOT RECOMMENDED FOR FUTURE LEGISLATION**

STATEMENT OF INTENT:

Numerous studies have been conducted relative to septage problems. The committee reviewed these past studies as well as a current study that is ongoing at DES relative to septage problems. RSA 485-A:5b states that municipalities are responsible to provide septage disposal facilities for their residents. Statewide approved septage disposal facilities have not kept pace with our rapid growth. There are 58 municipalities that, for one reason or another, are unable to comply. More reliance is placed on out of state facilities, which are becoming close to capacity. The interim study committee combined with the ongoing septage task force organized by DES has proposed several bills for the next legislature to help resolve these issues. There are currently over 70 municipalities that send septage to out of state facilities that may refuse septage at any time.

COMMITTEE VOTE: 15-0

PLEASE NOTE:
- Reports are due **November 1, 2000**, at the House Clerk's Office with the committee voting sheet attached.
- Place a copy of the committee report and all subcommittee work documents in bill file.

Rep. Donald R. Philbrick
For the Committee

Rev. 6/5/00

HB 1201 Interim Study

Numerous studies have been conducted relative to septage problems. The committee reviewed these past studies as well as a current study that is ongoing at DES relative to septage problems. RSA 485-A:5b states that municipalities are responsible to provide septage disposal facilities for their residents. Statewide-approved septage disposal facilities have not kept pace with our rapid growth. There are 58 municipalities that, for one reason or another, are unable to comply. More reliance is placed on out of state facilities, which are becoming close to capacity. The interim study committee combined with the ongoing septage task force organized by DES has proposed several bills for the next legislature to help resolve these issues. There are currently over 70 municipalities that send septage to out of state facilities that may refuse septage at any time.



ENVIRONMENT AND AGRICULTURE

Bill #: HB1201 Title: _____

PH Date: ___/___/___ Exec Session Date: 10/3/00

Motion: _____ Amendment #: _____

MEMBER	YEAS	NAYS
Musler, George T, Chairman		
Leishman, Peter R, V Chairman	✓	
Messier, Irene M	✓	
Pratt, Leighton C	✓	
McRae, Karen K, Clerk	✓	
Philbrick, Donald R	✓	
Babson, David L	✓	
Phinney, William R		
Marshall, Kenneth R	✓	
Dunlap, Patricia C	✓	
Franks, Suzan L R	✓	
Scanlan, David M	✓	
Cobb, John S	✓	
Harmon, Hobart M		
Hall, Betty B	✓	
Owen, Derek	✓	
Melcher, Harold P	✓	
Meader, David R		
Phinizy, James	✓	
Shelton, Richard C		
Tuthill, John G		
Vaillancourt, Steve		
	15	0

TOTAL VOTE:

Printed: 2/15/2000