BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

UNITED CITY OF YORKVILLE, A MUNICIPAL CORPORATION, Petitioner, v. ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, and HAMMAN FARMS, Respondents.	)	PCB No. 08-95 (Appeal of Agency Action)

NOTICE OF FILING

TO: SEE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that on July 31, 2008, we electronically filed with the Clerk of the Illinois Pollution Control Board, Respondent Hamman Farms' Brief in Response to Hearing Officer's July 24, 2008 Order, copies of which are attached hereto and hereby served upon you.

Dated: July 31, 2008

Respectfully submitted,

On behalf of HAMMAN FARMS

/s/
Charles F. Helsten
One of Its Attorneys

Charles F. Helsten
Nicola Nelson
Hinshaw & Culbertson LLP
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P.O. Box 1389
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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

UNITED CITY OF YORKVILLE, A MUNICIPAL CORPORATION, Complainant, v. ILLINOIS ENVIRONMENTAL PROTECTION AGENCY and HAMMAN FARMS, Respondents.	)	PCB No. 08-95 (Appeal of Agency Action)

RESPONDENT HAMMAN FARMS' BRIEF IN RESPONSE TO HEARING OFFICER'S JULY 24, 2008 ORDER

NOW COMES Respondent, HAMMAN FARMS, by and through its attorneys, Charles F. Helsten and HINSHAW & CULBERTSON LLP, and for its Brief in Response to the Hearing Officer's July 24, 2008 Order, states as follows:

BACKGROUND

This action arises from a third-party appeal of the IEPA's calculation of the appropriate rate for applying landscape waste to the fields at Hamman Farms. In April 2008, Hamman Farms requested that the IEPA consider the farm's unique soil characteristics and crop needs and determine the appropriate agronomic rate, pursuant to 415 ILCS 5/21(q), which authorizes the Agency to calculate the proper agronomic rate for farms where the land's soil characteristics or crop needs justify a rate higher than the statutory default rate of 20 tons per acre per year. *Id.*

Hamman Farms and IEPA have both moved to dismiss this action, based on the Petitioner's lack of standing and the Board's lack of jurisdiction to hear such an appeal, which Petitioner incorrectly characterizes in its briefs as an appeal of the granting of a "permit."

On July 23, 2008, Hamman Farms filed a Motion for Hearing Officer's Ruling on Discovery, in which Hamman Farms concurred with the Agency's position that, even if the Board had jurisdiction over this action, discovery is clearly inappropriate in a "permit appeal,"

where the only information relevant to the Board's review is the record before the Agency at the time it made its decision. *See generally*, Hamman Farms' July 23, 2008 Motion and July 24, 2008 Supplement.

In response to Hamman Farms' Motion seeking a ruling on discovery, the Hearing Officer ordered that the parties file briefs "elaborating on the information they believe is arguably relevant, discoverable, and admissible in this proceeding that was not before the Agency at the time the permit was issued." (Hearing Officer's July 24, 2008 Order at 1).

The burden of showing that such information exists is, pursuant to Board precedent, on the Petitioner seeking discovery. (*See, e.g., Des Plaines Watershed,* cited in the Hearing Officer's Order). Nonetheless, Respondent states affirmatively that there is no relevant, discoverable information which was not before the Agency at the time it made its decision.

I. Relevant Factors in a Request Pursuant to 415 ILCS 5/21(q)

As a threshold matter, it should be remembered that no "permit" was issued to Hamman Farms for the application of landscape waste. Under 415 ILCS 5/21(q), no permit is necessary for a farm to apply landscape waste to its fields at agronomic rates. *Id.* at 5/21(q)(2). The term "agronomic rate" is, by definition, "the application of not more than 20 tons per acre per year, except that the Agency may allow a higher rate for individual sites where the owner or operator has demonstrated to the Agency that the site's soil characteristics or crop needs require a higher rate." 415 ILCS 5/21. In April 2008, Hamman Farms requested that the Agency consider the farm's soil characteristics and crop needs, pursuant to 415 ILCS 5/21, and determine the appropriate agronomic rate for its fields.

Because the Agency's calculation of the appropriate agronomic rate came in response to a request under 415 ILCS 5/21(q), the sole factors the Agency had to consider were the soil

characteristics or crop needs of the subject site; these are, accordingly, the factors at issue in this case.

II. **The Data on Which the Agency Relied in Making its Decision**

In assessing the soil characteristics and crop needs of Hamman Farms' fields, the Agency reviewed Hamman Farms' April 2008 letter with attachments (totaling 26 pages), a copy of which is attached hereto as Group Exhibit A. The packet of data and materials that Hamman Farms submitted to the Agency, and on which the Agency presumably relied in determining the appropriate agronomic rate in light of the soil characteristics and crop needs, included:

- a descriptive overview of the operations at the farm, including the number of acres to which the material would be applied, the chemical composition and average weight of the materials to be applied, the types of crops planted at Hamman Farms, and the average yields of those crops;
- an explanation of the farm's land application procedures, including: its hours and months of operation, a description of the number and types of employees, a listing of the equipment used in processing and applying the material to the fields, and a detailed description of how material is handled from the time it arrives on-site to the time it is incorporated into the fields, including a description of tilling and spreading practices designed to prevent transportation of the applied materials into surface waters;
- a copy of the farm's litter control plan, which details four (4) stages of litter control, and odor control procedures, which consist of seven (7) component parts, which were developed by Hamman Farms with input from Kendall County State's Attorney Eric Weis, and Kendall County Solid Waste Director, Marlin Hartman);

- excerpts from the USDA Soil Conservation Service Soil Survey of Kendall County, including the general soil map showing the Hamman Farms property;
- a chemical soil analysis report prepared by Midwest Laboratories that shows the chemical analysis of the soil and the landscape material applied at the farm;
- a description of calculations prepared by noted soil scientist, Dr. Agva Razvi, which demonstrate how he determined the nitrogen demand and expected nitrogen and potassium loading at the farm; and
- a three-page report by Dr. Razvi discussing the benefits of agronomic application of landscape waste, including the conservation of soil and water, and minimization of the use of chemical fertilizers, and also describing the improvements to tilth and soil quality and the minimization of erosion that have resulted from Hamman Farms' application of landscape waste to its fields.

III. Information that Hamman Farms Believes is Relevant, Discoverable, and Admissible in this Case

As discussed in Hamman Farms' brief requesting an order limiting discovery, Hamman Farms' position is that not only does the Petitioner lack standing to prosecute the case and the Board lack jurisdiction to hear the case, even if the Petitioner had standing and the Board had jurisdiction, discovery would be improper because the only relevant information in a review of a permit decision is the information considered by the Agency in reaching the challenged decision. In the case of the Agency's assessment of soil characteristics and crop needs at Hamman Farms, and the resulting calculation of the appropriate agronomic rate for the farm, that information is attached hereto as Exhibit A; this Exhibit thus obviates any need for discovery.

Hamman Farms believes the only other material that would be "arguably relevant, discoverable, and admissible in this proceeding" would be other data that the Agency reviewed

and considered in assessing the farm's soil characteristics and crop needs, and the resulting calculation of the appropriate agronomic rate. Hamman Farms is unaware of the existence of such other data, although it is conceivable that the Agency might have such data in its possession. To the extent that the Agency reviewed and considered other data in reaching its decision, that data might be relevant, discoverable, and admissible.

WHEREFORE, HAMMAN FARMS respectfully requests that the Hearing Officer order that discovery is inappropriate in this case, or in the alternative, enter an order limiting discovery to the data reviewed and considered by the Agency in reaching its assessment of Hamman Farms' soil characteristics or crop needs, and its resulting calculation of the appropriate agronomic rate for Hamman Farms.

Dated: _____

Respectfully submitted,

On behalf of HAMMAN FARMS

/s/_____
Charles F. Helsten
One of Its Attorneys

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AFFIDAVIT OF SERVICE

The undersigned, pursuant to the provisions of Section 1-109 of the Illinois Code of Civil Procedure, hereby under penalty of perjury under the laws of the United States of America, certifies that on July 31, 2008, she caused to be served a copy of the foregoing upon:

Mr. John T. Therriault, Assistant Clerk
Illinois Pollution Control Board
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(via electronic filing)

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A copy of the same was enclosed in an envelope in the United States mail at Rockford, Illinois, proper postage prepaid, before the hour of 5:00 p.m., addressed as above.

PCB No. 08-95
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April 10, 2008

Mr. Derek Rompot, BOL #33
Permit Engineer, Disposal Alternatives Unit
Bureau of Land, IEPA
1021 North Grand Avenue East
P. O. Box 19276
Springfield, IL 62794-9276

Re: Hamman Farms (0930155023)
Kendall County

Dear Mr. Rompot:

I have received the March 17, 2008 Memorandum prepared by Steve Nightingale in response to Hamman Farms' request, pursuant to 415 ILCS 5/21(q), that the Agency exercise its statutory authority to raise the application rate of landscape waste to the fields at Hamman Farms. I appreciate the Agency's careful consideration of this request. Hamman Farms is mindful of the General Assembly's intent, in enacting the Illinois Environmental Protection Act ("the Act"), to ensure that the State fulfills its duty to "minimize environmental damage...[and] to promote the development of technology for environmental protection and conservation of natural resources" and "restore, protect and enhance the quality of the environment." 415 ILCS 5/2(a)(iv); 415 ILCS 5/2(b). Hamman Farms' request is fully in keeping with that purpose, and will, if granted, help to further the Act's goals.

As you know, the determination was made back in 1990 that it is inappropriate and inefficient to dispose of landscape waste in solid waste landfills. In addition to creating a system to establish and regulate commercial landscape waste disposal sites, the Legislature has also recognized that it is clearly in the public interest to encourage recycling and reuse of waste materials, both by individuals, and by large-scale enterprises. (415 ILCS 5/20(a), (c)). The Act accordingly provides that those who alleviate pressure on landscape waste disposal facilities by applying landscape waste to farm fields for agronomic purposes are exempt from the rigorous regulatory mechanisms and processes that govern commercial sites. The decision to exempt those who apply landscape waste to farm fields from rigorous mechanisms reflects the Legislature's understanding that encouraging the re-use of landscape waste will not only minimize the volume of waste being deposited in large-scale disposal sites, it will also benefit the soil that receives the application by preventing erosion, improving tilth, and increasing productivity without the use of chemical fertilizers (thereby minimizing negative impacts on water quality). In addition, the legislature clearly understood that such application provides a valuable service to landscape waste generators by offering a convenient, cost-effective, eco-friendly way to dispose of

landscape waste. In summary, the agronomic application of landscape waste consistent with the soil characteristics and crop needs of a particular site constitutes a "full circle" resource recovery plan which affords multiple environmental benefits.

As you know, pursuant to 415 ILCS 5/21(q), landscape waste may be directly applied to fields at an agronomic rate defined generally as 20 tons per acre per year. However, in setting this rate, the legislature gave the Agency the discretion to allow an increased application rate if a farm owner or operator demonstrates that local soil characteristics or crop needs justify a higher application rate. In the case of Hamman Farms, the soil characteristics and crop needs do, indeed, justify a higher application rate.

Hamman Farms' land is classified as Highly Erodable Land (HEL). Through application of landscape waste, the farm soil has gradually improved in recent years. As noted in the attached report prepared by Dr. Aga Razvi, Ph.D.[1], a noted soil expert and professor at the College of Natural Resources, University of Wisconsin – Stevens Point, careful management and application of landscape waste has enabled Hamman Farms to consistently produce high crop yields for the last fifteen years, while at the same time conserving soil and water, and minimizing the use of chemical fertilizers.

Dr. Razvi's report observes that in a typical rotation, the crops grown at Hamman Farms would require, on average, 240 to 260 pounds of available nitrogen, 75 pounds of phosphorous, and 75 pounds of potassium per growing season per acre. Under the statutory agronomic rate, if measured at its dry weight, 20 tons of landscape waste would supply only 72 pounds of nitrogen for the soil during the first year. Obviously, this number falls far short of the 240 to 260 pounds needed to sustain acceptable yield levels. The shortfall is even more dramatic if the 20 ton statutory rate is measured at its "as-received" weight, rather than its dry weight, due to the much higher water content when in that state.

At the statutory, agronomic rate of 20 tons, Dr. Razvi notes that soil losses on the Hamman HEL land can only be maintained at a more or less minimal, "tolerable" level. Allowing Hamman Farms to move beyond maintaining "tolerable soil losses," and to instead apply 80 tons of landscape waste per year would allow Hamman Farms to improve the quality and productivity of this HEL land, while at the same time, minimizing erosion and eliminating the need for chemical fertilizers. Moreover, allowing a higher rate of application would significantly decrease the volume of waste that would otherwise be deposited in commercial landscape waste disposal sites. As a result, allowing a greater rate of application, as provided under Section 21(q), would further the Act's purpose of conserving natural resources and enhancing the environment.

In the attachment to Steve Nightingale's March 17, 2008 correspondence, Mr. Nightingale proposed that Hamman Farms provide information to support its pending request for an increase to the application rate. It is worth noting that in evaluating the materials provided with this application, the sole relevant inquiry prescribed by the Legislature is whether the farm's soil

[1] A copy of Dr. Razvi's letter is attached to this application as **Exhibit E**.

characteristics or crop needs (the designated criteria listed at Section 21(q)), justify the requested application rate of 80 tons per acre per year.

That being noted, for its response to the requests for information listed in "Attachment A" of the March 17, 2008 Nightingale Memorandum, Hamman Farms responds as follows:

- With respect to the amount of acreage available to receive application of landfill waste each month, 2,200 acres are available. The method used to apply the material to the fields is fully described in the attached **Exhibit A**, which incorporates an explanation of Hamman Farms' operations and application procedures, along with its litter control plan and odor control procedures, which were developed with input from Kendall County State's Attorney Eric Weis, and Kendall County Solid Waste Director, Marlin Hartman.

- In response to the request for documentation concerning the classification of the soil, excerpts from the USDA Soil Conservation Service Soil Survey of Kendall County are attached as **Exhibit B**.

- Materials concerning the requested chemical analysis of the soil and compost are attached to this letter as **Exhibit C.**

- The requested documentation concerning the nitrogen demand used to determine the appropriate agronomic rate of compost application and calculations concerning the expected nitrogen and potassium loading to the soils, as provided by Dr. Razvi, are attached to this letter as **Exhibit D**.

- No other soil additives are used at the site.

- As noted above, and as documented in Dr. Razvi's report, attached as **Exhibit E**, the application of landscape waste at Hamman Farms is improving tilth and soil quality, thereby minimizing erosion.

- Recordkeeping is described in the "Operational Summary" provided in Group Exhibit A.

- As described in the Operational Summary, in order to prevent the transportation of applied materials into surface waters, Hamman Farms does not spread or till within 25 feet of drainage ways. It should also be noted that landscape waste is field applied the same day it is received, and is thoroughly incorporated into the soil through a 2-step tilling process (described in the Operational Summary), which surpasses the requirements of the Act; these procedures effectively prevent the applied material from traveling into surface waters.

In light of the information and documentation provided herein, and given the benefits of dramatically improved soil quality, improved water quality (through elimination of the use of chemical fertilizers), minimization of surface water runoff, increased productivity, and decreased

pressure on commercial landscape waste disposal sites, Hamman Farms' request that it be allowed to apply landscape waste at a rate of 80 tons per year should be granted because it would further the purpose of the Act by helping to restore, protect and enhance the quality of the environment. The request is, therefore, appropriate under 415 ILCS 5/21(q).

Because Hamman Farms' operational season is upon us, and disposal pressures in the marketplace are intensifying and must be addressed, I look forward to receiving approval of the requested application rate at the earliest possible opportunity.

If you have any questions or would like to discuss this matter further, please do not hesitate to call me.

Sincerely,

HINSHAW & CULBERTSON LLP

Charles F. Helsten
815-490-4906
chelsten@hinshawlaw.com

CFH:nn
Enclosures

cc: Don Hamman
Eric Weis
Marlin Hartman

EXHIBIT A – LAND APPLICATION PLAN

APPLICATION PLAN - OVERVIEW

The rate and methodology of the application of landscape waste to the fields at Hamman Farms can best be understood by beginning with a simple mathematical overview of the amount of waste that is proposed to be applied, and the amount of acreage that would receive the waste. Hamman Farms proposes to accept up to 9,387 loads of landscape waste annually, with an average of 75 cubic yards per load. This would result in 704,025 cubic yards of waste material. While the weight of a cubic yard of landscape waste varies depending on its content (i.e. fallen leaves are much lighter than fresh-mown grass clippings), on average the weight of such waste is 500 pounds per cubic yard. When the number of cubic yards (704,025) is multiplied by the average weight per cubic yard (500 pounds), the result is a total of 176,006 tons of landscape waste per year.

Hamman Farms has 2,200 acres that would be available to receive application of the proposed 176,006 tons of landscape waste. This would represent an annual application rate of 80 tons per acre. The rate of application is uniform throughout the acres in use because, as a practical matter, it is virtually impossible to super-apply the material to a particular spot, given that the applied material is plowed in every day, causing the soil to become loose and soft. Once material has been plowed in to a given area, the molboarding equipment would become bogged down and unable to operate if an attempt was made to re-apply to that same area within a given year.

The Hamman Farms protocol of spreading and plowing the material into the fields the same day it is received not only avoids odor problems, it also decreases erosion of the farm's HEL soil, and prevents sheeting off of rainwater from the fields. The efficient manner in which Hamman Farms processes the landscape waste it receives provides additional environmental benefits, including increased nutrient supply and retention that eliminates the need for application of artificial fertilizers to the farm's fields, and improved moisture retention. These improvements to soil quality, coupled with the resulting increased aeration, have led to outstanding productivity over the last fifteen years, with yields of 250 bushels per acre of corn, 50 to 70 bushels per acre of soybeans, and 90 to 110 bushels of winter wheat per acre. At the same time, Hamman Farms has been able to keep a substantial amount of landscape waste out of Illinois landscape waste disposal sites, and offers a value service to municipalities and waste haulers in their attempts to manage the waste needs of urban and suburban landowners.

The documents in the Land Application Plan which follows (collectively, Group Exhibit A) provide a description of the farm itself, its employees, its equipment, its protocols for handling waste from the moment it arrives at the site to the time it is plowed into the fields, its litter control plan, and its odor control procedures.

FACILITY OPERATIONS and APPLICATION RATE

HAMMAN FARMS LLC

1994	Commencement of Operations
2,200 acres	Subject Site owned and/or controlled and farmed by Don & Carol Hamman
2.0 acres	Staging Area for Incoming/Receiving/Processing/Loading
April 1st - January 10th	Approximate Open Season
January 11 - March 31st	Closed
6:00AM - 5:00PM	Receiving Hours - Monday through Friday
6:00AM - 12:00PM	Receiving Hours - Saturday
Daily Processing	All landscape material received is processed and field applied that day

Employees:

- 1x General Manager
- 1x Site Supervisor
- 3x Equipment Operators
- 3x Full Time Pickers

Equipment:

- 1x Komatsu 470 Wheel Loader (Pushes material to Tub Grinder and loads Spreaders)
- 1x Vermeer Model 700 Tub Grinder (1,000 hp with 400-500 cubic yard/hr capacity)
- 1x Cat 330 Excavator with 8 yard Grapple (loads material into Tub Grinder)
- 2x Morlang 20 yard Spreader
- 1x 9520 (475 hp) John Deere 4x4 Tractor with Case IH 9 shank ecology Chisel Plow
- 1x Case IH (530 hp) Quad Tractor with 10 bottom John Deere Molboard Plow
- 1x Roll-Off box for reject material and picked plastic.
- 1x New 20 yard Spreader (delivery in July)

Operational Summary:

Landscape material arrives in trailers or trucks during operating hours and is directed to unload at the designated unloading/processing area. Employees pick non-conforming material during the unloading. A rubber tire wheel loader moves material from the unloading area to the processing and/or grinding stockpile. The excavator moves landscape waste from the stockpile into the tub grinder. The tub grinder processes material until it passes through a 5"x5" diamond shaped screen. Processed material is then loaded into spreading trucks that transport and spread material in the designated field. Material is first chisel plowed into the field, then molboard plowed (a 2 step process that fully incorporates the material into the field).The facility supervisor collects load tickets from each driver and notes the area where the material has been applied. A field does not receive more than 1 application per year. Material is not spread within 25 feet of drainage ways to prevent transportation of applied materials into surface waters. Material is processed and field applied the day it is received.

Continued investment in proper equipment allows the site to remain open and fully operational during inclement weather. Pickers/laborers control waste by patroling the unloading/processing area as well as the fields, ditches, and roads at and near the Subject Site.

Soil Management and Crop Yield:

Soil Survey literature shows the Subject Site is generally associated with Saybrook-Drummer-La Rose series of soils, so protecting the soil from erosion and increasing its organic matter content are major soil management concerns. Application of processed landscape waste provides several benefits, including increased aeration, nutrient supply and retention; improved moisture retention; and decreased soil erosion. As a result, Hamman Farms has consistently produced crop yields of 250 bushels of corn per acre, 50 to 70 bushels of soybeans per acre, and 90 to 110 bushels of winter wheat per acre.

Proposed Application Rate [redacted] 80 tons/acre

			Scenario 1 Lighter	Scenario 2 Average	Scenario 3 Heavier	
Loads of Landscape Material	(A)		9,387	9,387	9,387	*(lds/yr)*
Average Cubic Yards per Load	(B)		75	75	75	*(cy/load)*
Annual Cubic Yards	(C)	(A*B)	704,025	704,025	704,025	*(cy/year)*
Acres Applied (estimated)	(D)		2,200	2,200	2,200	*(acres)*
Cubic Yards/Acre	(E)	(C/D)	320	320	320	*(cy/acre)*
Loads/acre	(F)	(A/D)	4.3	4.3	4.3	*(loads/acre)*
Average Lbs/Cubic Yard	(G)		400	500	600	*(lbs/cy)*
Tons	(H)	(C*G)/2000	140,805	176,006	211,208	*(tons)*
Tons/Acre	(I)	(H/D)	64	[redacted] 80	96	*(tons/acre)*

Litter Control Procedures
Hamman Farms

Hamman Farms has prepared this Litter Control Plan to develop a standard operating procedure for the acceptance of yard waste materials from miscellaneous landscapers and other transporters to assure compliance with IEPA guidelines. Hamman Farms recognizes the need to establish and enforce a set of guidelines not only for compliance as well establish themselves as a good neighbor. Hamman Farms is committed to enforcing and maintaining the procedures as outlined below.

The Litter Control Plan consists of the following components:

1) All parties delivering material to Hamman Farms shall be notified prior to delivery and dumping that litter/general refuse are not acceptable for disposal at this facility. In addition to notifying all parties delivering material to the facility, Hamman Farms shall also notify all employees of the Litter Control Plan.

2) **Stage 1.** All loads will be screened by Hamman staff as they are unloaded by the hauler to monitor and catch any unacceptable materials as they exit the vehicle. Any incidental material that is culled from the load as it is being unloaded will be given back to the hauler that delivered the load for return and disposal at a proper disposal facility.

3) **Stage 2.** Prior to loading landscape waste into the grinder for processing, a end-loader shall move material to assist spotters looking to pick any litter/general refuse prior to the material being placed in the grinder. Due to the safety concerns here one man will be utilized at this location. Any litter/general refuse collected here will be separated and disposed in a waste receptacle to be delivered to a properly permitted waste disposal facility at least once a week.

4) **Stage 3.** All processed/ground landscape waste will be additionally screened for any litter/general refuse prior to being loaded into the spreaders and taken to the fields for application. 1-2 people will be utilized for these screening activities. Any litter/general refuse collected here will be separated and disposed in a waste receptacle to be delivered to a properly permitted waste disposal facility at least once per week.

5) **Stage 4.** Upon application of the material to the fields and prior to being molbard tilled into the ground, additional personnel (2-4 people) shall walk the fields of the applied materials and collect any unacceptable materials that may have gotten through the prior screening processes. (Unacceptable materials are defined as all non-biodegradable materials that measure larger than a softball or 4" by 4" in diameter) Hamman Farms will be responsible in maintaining a 40' radius clean of not more than 5 pieces of unacceptable material at all times.

6) Finally, Hamman Farms shall calculate, on a weekly basis, the percentage of non-landscape waste and maintain these records for three (3) years.

Odor Control Procedures
Hamman Farms

Hamman Farms has developed multiple features into the operational plan to control and minimize any potential odors off the facility property. Hamman Farms is committed to maintaining the procedures as outlined below.

The Odor Control Plan consists of the following components:

1) All vehicles entering the facility tipping area will be directed to the tip area being utilized at that time. All material will be unloaded in the designated area.

2) Any incoming load which exhibits an unusually distinct odor will not be stockpiled with other materials in the tipping area, but it will be immediately screened for any litter/general refuse and processed by the grinder and then screened again and loaded onto a spreader and immediately taken to the field for application.

3) Upon identifying repeat loads with distinct odors, Hamman Farms will notify the hauler delivering the material of the concern and work to mitigate deliveries in the future.

4) Other than specifically identified loads with a distinct odor, all other loads will be continually processed throughout the operating day on a first-in, firs-out to the field basis. As such, all materials delivered to the facility will be processed and readied for application to the field daily.

5) In addition to daily processing of all materials, all processed materials will be land applied each day. This is above and beyond the current IEPA requirements. (Currently allowed to stockpile for five days)

6) In addition to the benefit of daily application is the daily incorporation into the soil. This as well is not required by regulation, but is a management practice incorporated by Hamman Farms to additionally mitigate any potential odors at the facility. Currently these incorporation techniques are two fold: chisel plowing the field and molbard plowing the field to incorporate the material.

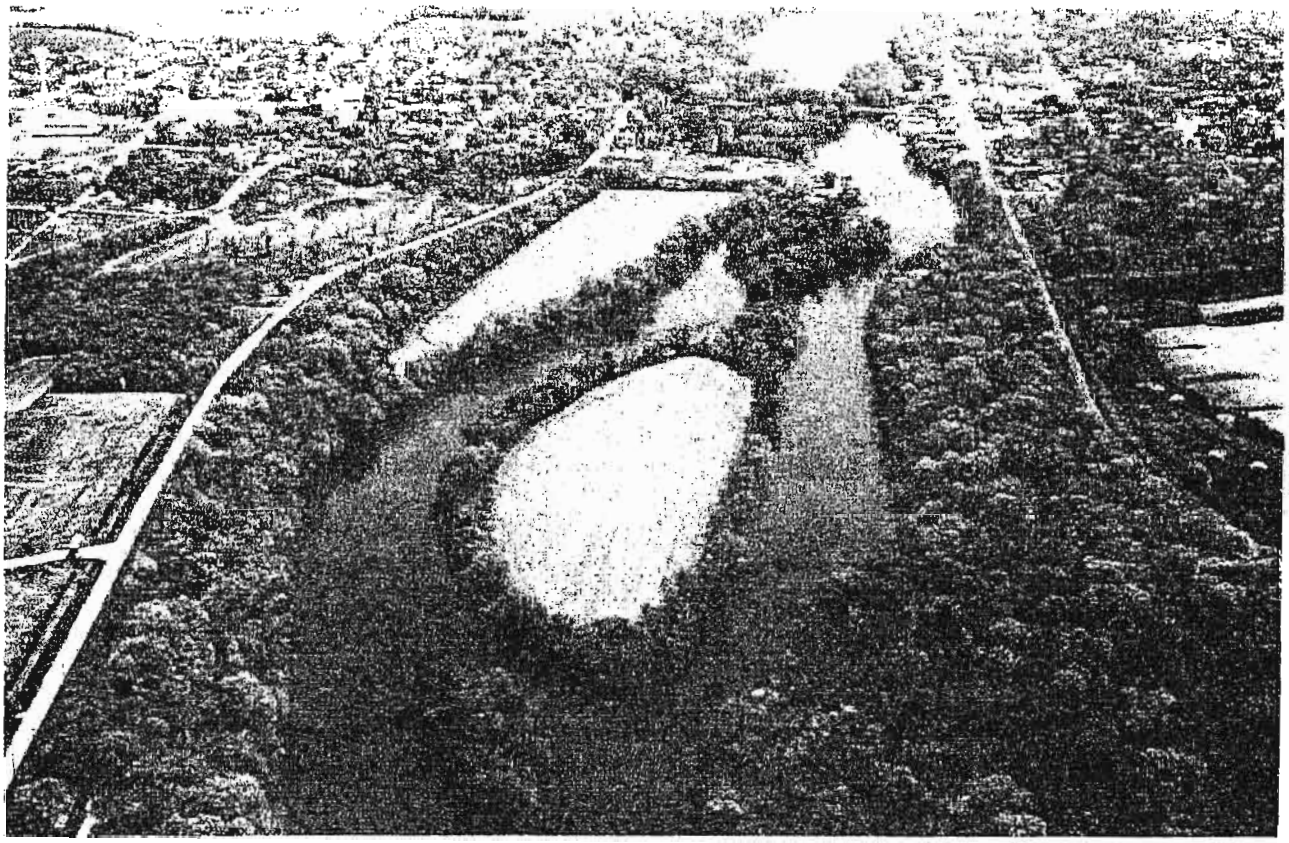
7) In addition to the above mentioned practices, Hamman Farms will immediately investigate any complaints of odors leaving the property and work diligently to mitigate the concern.

EXHIBIT B

USDA SOIL CONSERVATION SERVICE SOIL SURVEY

SOIL SURVEY OF

Kendall County, Illinois



Page 44439

United States Department of Agriculture
Soil Conservation Service
In cooperation with
Illinois Agricultural Experiment Station

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
ILLINOIS AGRICULTURAL EXPERIMENT STATION

GENERAL SOIL MAP
KENDALL COUNTY, ILLINOIS

Scale 1:126,720

1 0 1 2 3 4 Miles

N

SOIL ASSOCIATIONS

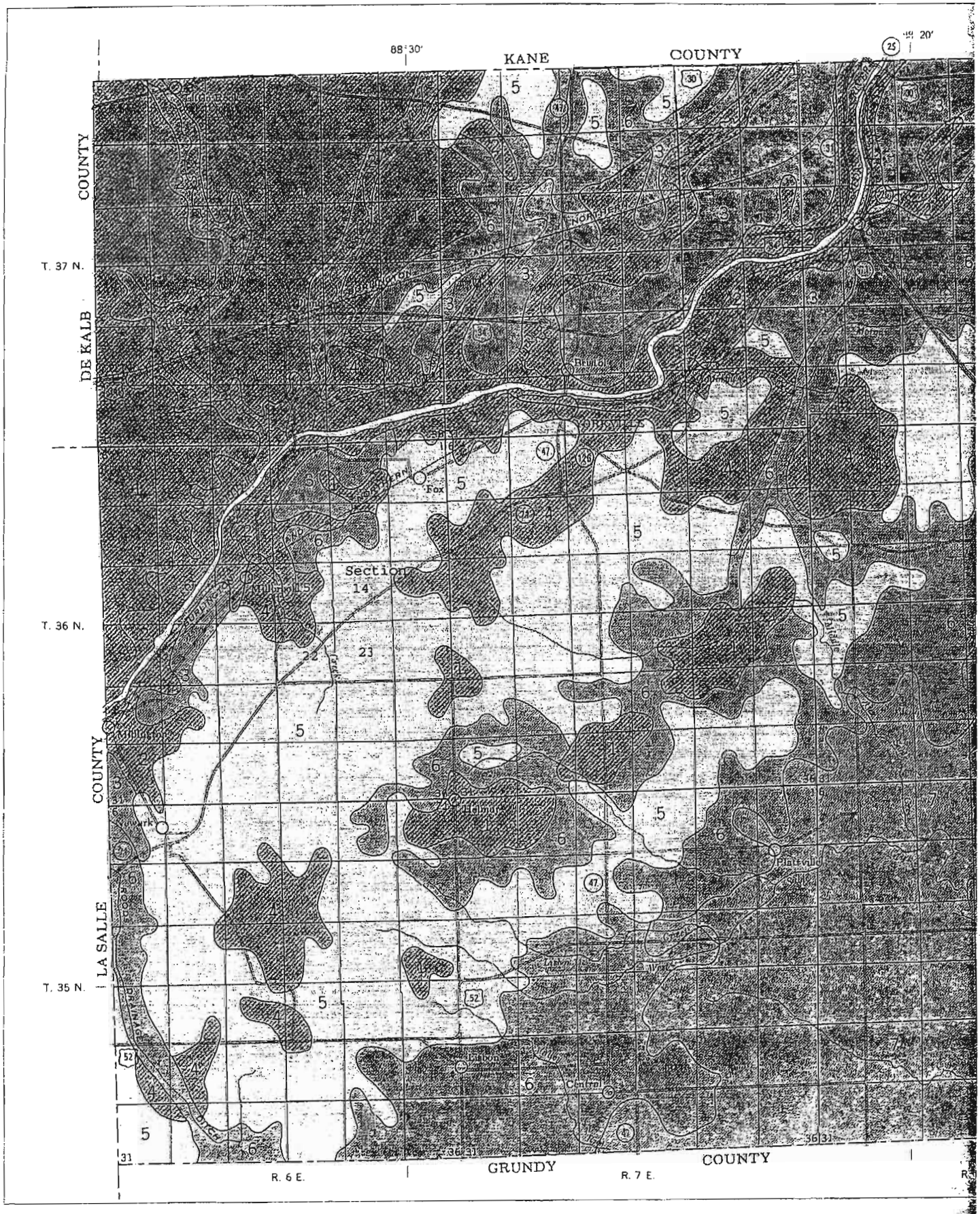
1. Plano-Elburn-St. Charles association: Nearly level to gently sloping, well drained to somewhat poorly drained soils that formed in silt loam material and the underlying sandy loam glacial drift
2. Millington-Lorenzo-Fox association: Nearly level, poorly drained soils that formed in silt loam sediment and gently sloping to very steep, well-drained soils that formed in dominantly sandy loam to silty clay loam material and the underlying sand and gravel
3. Waupecan-Dresden-Brenton association: Nearly level to gently sloping, well drained to somewhat poorly drained soils that formed in silt loam and loam material and the underlying sand and gravel
4. Strawn-Dodge association: Gently sloping to steep, well-drained soils that formed in silt loam material and the underlying loam and silt loam glacial till
5. Saybrook-Drummer-La Rose association: Well drained to poorly drained, nearly level to strongly sloping soils that formed in silt loam material and the underlying silt loam to loam glacial till
6. Drummer-Mundelein-Brenton association: Nearly level, poorly drained and somewhat poorly drained soils that formed in silt loam material and the underlying glacial outwash
7. Swygert-Bryce-Martinton association: Nearly level, somewhat poorly drained and poorly drained soils that formed in silty clay and silty clay loam lakebed sediments

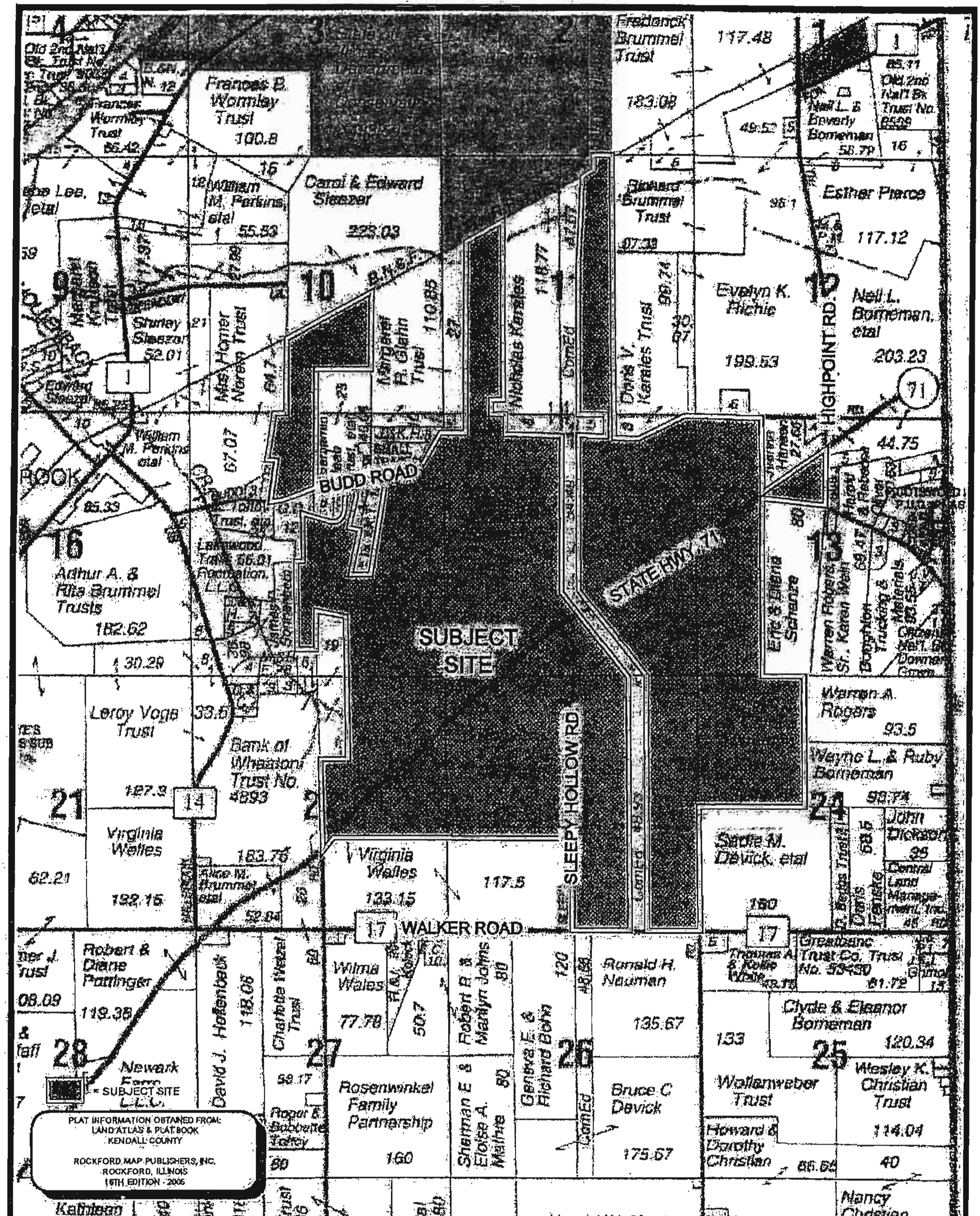
Compiled 1976

SECTIONALIZED TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Each area outlined on this map consists of more than one kind of soil. The map is thus meant for general planning rather than a basis for decisions on the use of specific tracts.





L-3	PLAT MAP SCALE 1" = 2640' NORTH	Lannert Group 215 Fulton Street, Geneva, Illinois 60134 (630) 208-8088 Fx:(630) 208-8050 lg @ lannert.com	FIVE H, LLC, DON HAMMAN 13351 FAXON ROAD PLANO, IL 60545 630-554-9101 630-554-9181	JOBNO: 0535 DATE: 10.19.05 REV: DRAWN BY: TRC

EXHIBIT C

CHEMICAL ANALYSIS OF SOIL/COMPOST

Report Number
07-341-5242

Midwest Laboratories, Inc.

13611 "B" Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402) 334-9121

DON HAMMAN

HINTZSCHE FERTILIZER
25181 COUNTY LINE ROAD
MAPLE PARK IL 60151-

FEED NUTRIENT ANALYSIS

Date Sampled	Received	Reported	Lab #
	12/ 03/ 07	12/ 12/ 07	9333365

Sample ID: LEAVES
Feedstuff: MIXED FORAGE

ANALYSIS RESULTS

Component	As Sent	Dry Wt.
Moisture (%)	50.09	//////
Dry Matter (%)	49.91	//////
Sulfur (%)	0.09	0.18
Phosphorus (%)	0.09	0.19
Potassium (%)	0.33	0.66
Magnesium (%)	0.30	0.60
Calcium (%)	1.53	3.07
Sodium (%)	0.04	0.08
Iron (ppm)	1029	2062
Manganese (ppm)	77	155
Copper (ppm)	7	15
Zinc (ppm)	29	59
Total Organic Carbon (%)	16.1	32.3
Nitrogen Total (N) (%)	0.45	0.90

35:1 C/N

COMMENTS

1. Mineral analysis performed by ICAP using a wet digest procedure.
2. Midwest Labs uses wet chemistry methods for all forage and feed analyses. Forage and Silage testing methodology follows the National Forage Testing Association (NFTA) recommended methods.
3. Midwest Labs is certified by the National Forage Testing Association (NFTA) for wet chemistry methods and mineral analysis.
4. C/ N ratio 35.9
5. Analysis for:
(13985) HINTZSCHE FERTILIZER
Phone: (630) 557-2406

John P. Torpy
Technical Director

Dedicated Exclusively to Providing Quality Analytical Services

MIDWEST LABORATORIES, INC. SOIL REPORT FOR HINTZSCHE FERTILIZER

REPORT NUMBER 07-339-0094
ANALYSIS DATE DEC 7, 2007
ACCOUNT NO 14229

Midwest Laboratories
12811 "O" Street • Omaha, Nebraska 68144-0693
(402) 334-7770 • FAX (402) 334-9121 • www.midwestlabs.com

PAGE 1/1
REPORT DATE DEC 10, 2007
COPY TO
2nd COPY TO

GROWER HANMAN

HINTZSCHE FERTILIZER
GRID ACCOUNT
28181 CITY LINE RD
MAPLE PARK IL
60151-

SOIL ANALYSIS REPORT
VIEW YOUR SUBMITTAL FORM

LAB NUMBER	SAMPLE IDENTIFICATION	ORGANIC MATTER (WALKLEY BLACK)		PHOSPHORUS P_1 (WEAK BRAY 1:7)		P_2 (STRONG BRAY 1:7)		BICARBONATE P (OLSEN)		POTASSIUM (NEUTRAL AMMONIUM ACETATE EXTRACTABLE) K		MAGNESIUM Mg		CALCIUM Ca		SODIUM Na		pH (1:1)	BUFFER INDEX	CATION EXCHANGE CAPACITY	PERCENT BASE SATURATION (COMPUTED)				
		PERCENT	RATE	ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE	ppm	RATE			C.E.C. meq/100g	% K	% Mg	% Ca	% H	% Na
8177793	1	6.6	VH	40	VH	82	VH			800	VH	640	VH	2156	M			7.3		17.4	9.8	20.6	60.4		
8177794	2	6.0	VH	58	VH	101	VH			790	VH	574	VH	2176	M			7.3		17.7	11.4	27.0	61.6		
8177795	3	5.6	VH	46	VH	82	VH			693	VH	512	VH	2141	M			7.3		17.6	10.1	20.0	60.9		
8177796	4	5.0	VH	63	VH	97	VH			908	VH	403	VH	1861	M			6.6	6.9	16.0	9.7	25.2	56.8	8.3	

Sample ID	NITRATE-N (lbs) Surface ppm	Surface lbs/A	Surface depth IN	Sub 1 ppm	Sub 1 lbs/A	Sub 1 depth IN	Sub 2 ppm	Sub 2 lbs/A	Sub 2 depth IN	Total lbs/A	SULFUR S (SAP) ppm	SULFUR RATE	ZINC Zn (DTPA Extractable) ppm	ZINC RATE	MANGANESE Mn ppm	MANGANESE RATE	IRON Fe ppm	IRON RATE	COPPER Cu ppm	COPPER RATE	BORON B ppm	BORON RATE	EXCESS LIME RATE	SOLUBLE SALTS (1:1) mmhos/cm	SOLUBLE SALTS RATE
1	27	49	0-6							49	15	M													
2	32	58	0-6							58	22	H													
3	37	67	0-6							67	23	H													
4	21	38	0-6							38	16	M													

Your cost for this report: $0.00

(W) EAST OF DRIVE

1 BLACK
2 DK BROWN

WEST

3 BROWN
4 BLACK

AVERAGE SOIL

	Our Soil
OM 2.5 - 3.5%	5.5
P1 25 - 35 ppm	2X
K 150 - 225 ppm	3X
Mg 800 ppm - 0	75%
Ca 1500 ppm	150%
pH	

EXHIBIT D

CALCULATIONS RE: NITROGEN DEMAND AND EXPECTED NITROGEN AND POTASSIUM LOADING

Nitrogen Calculations

Agronomic Nitrogen needs of Corn

Target N
Target yield 250 bushels per acre x 1.3 lbs. N per bushel = **325 pounds of N per acre**
Soybeans using soil nitrogen as a source are able to remove as much nitrogen as corn

Contributions from soil organic matter
Soil organic matter content 5.5%
Assume 3% N and 3% decomposition per year
N from soil organic matter = 0.055 * 0.03 * 0.03*2,000,000 lb soil/acre = **99 lb N per acre**

Nitrate nitrogen from soil
Soil tests done determined this amount to be **53 lbs per acre**.

Nitrogen from yard waste applied
Target N minus (N from organic matter plus N from nitrate) = N from yard waste applied or fertilizer sources

325 – (99 + 53) = 173 pounds of available N must be applied via yard waste

Yard Waste target N of 173 pounds per acre
Assume average Total Nitrogen content of yard waste material to be 0.45% as received basis. Total Nitrogen content on an as-received basis is 9 pounds per ton.

Assume 20% of Total Nitrogen is available to crop in first year after application. Higher rates of decomposition may occur dependent upon C:N ratio, particle size of waste, soil moisture, soil temperature, soil pH, soil oxygen, length of time etc. Some of the available nitrogen may be lost to the atmosphere due to denitrification. Therefore, under conditions of this assumption each ton of as-received yard waste contributes 1.8 pounds of available nitrogen.

Application Rate As-received tons/acre	Available Nitrogen in first year after application pounds/acre
20	36
40	72
60	108
80	144
100	180

Potassium Calculations

Corn needs for potassium are 0.28 pounds per bushel or (0.28*250 bushels/acre) = 70 pounds per acre. Soybean needs for potassium could be twice as much as corn.

Potassium from yard waste

Assume 0.66% potassium content of yard waste material on a dry basis

Assume 50% moisture content (Higher for grass clippings, lower for brush)

Potassium content on an as-received basis 0.33%

Each as-received ton of waste contains 6.6 pounds of potassium. Because of the variability in yard waste, it would be difficult to accurately predict the percent availability of potassium in the first year. Assume 20% breakdown of organic matter and 30-50% of potassium is available in the first year. This value could vary dependent upon C:N ratio, soil moisture, soil temperature, soil pH etc. Therefore, we can assume that 2-3 pounds of potassium per as-received ton may be available in the first year after application.

With the available potassium (very high) in the soil, an application rate of 80-100 tons of yard waste material potassium is likely to accumulate in the soil at levels in excess of crop needs and as evidenced by the soil test report. It would be difficult to balance agronomic needs of all crops. Best management practices for fertilizer applications in Illinois allow application of excess amounts of potassium to meet the needs of two successive crops in a rotation. Excess amounts of potassium should be harnessed by including soybeans, and forage crops in a rotation, combined with routine soil tests, and if needed a break in yard waste application for a year or more in fields that have very high levels of potassium.

EXHIBIT E

OPINION OF DR. RAZVI,

College of Natural Resources
University of Wisconsin-Stevens Point Stevens Point, Wisconsin 54481-3897 (715) 346-2853 FAX (715) 346-3624

February 13, 2008

Mr. Don Hamman
6275 Rte. 71
Oswego, Illinois 60543

Dear Mr. Hamman,

I have reviewed the violation notice L-2007-041437 dated November 15, 2007, issued to Hamman Farms by the Bureau of Land of the Illinois EPA. This notice is regarding application of landscape wastes on agricultural land. The referenced violation notice refers to the over application of landscape wastes. I have reviewed the narratives prepared by Mr. Gino Bruni based on field inspections conducted on September 21, and October 17, 2007. I have also reviewed a letter written to you on February 4, 2008 by Mr. McTaggart, District Conservationist of the Yorkville, of the Natural Resources Conservation Service (NRCS). The following is my opinion on the issue of over application of landscape wastes.

The landscape waste application on the Hamman Farms has two primary objectives:

1. To offer a valuable service to landscape waste generators while saving landfill space due to the existence of a landfill ban for this material.

2. Conserve soil while building tilth for better crop yields, minimization of erosion, and environmental protection.

The landscape waste application has allowed this farm to progressively build the soil organic matter and tilth to conserve the soil from eroding, while minimizing or eliminating the use of commercial fertilizers and minimizing the potential negative impact on groundwater and surface water. The organic

matter in a soil offers a continuous single source of all essential crop nutrients available over a long period of time. More organic matter in a soil is better than less organic matter, both for crop growth, and environmental protection. Addition of organic matter minimizes soil erosion especially on Highly Erodable Land (HEL) such as you have on your land. I agree with the assessment made by Mr. McTaggart of NRCS that the application of 20 tons per acre would be sufficient to keep the soil losses at a tolerable level complimenting HEL requirements. In my opinion, any application above the 20 tons per acre is only a compliment to this land and HEL requirements.

Organic matter is continually decomposing material, as a result it is difficult to sustain a high level of organic matter unless there are repeated additions and or greater levels of landscape wastes applied. Recent soil analysis results from soil samples collected from the Hamman Farms suggest that the organic matter in soils receiving landscape waste has

been built up to 5% by weight of the soils plow layer. Similar soils in this region may have half the amount of organic matter. The amount of landscape waste applied has a direct impact on the soil organic matter as well as the amount of plant nutrients it could potentially supply to the crop. Many farmers land-apply adequate organic wastes (agronomic rates) to meet all if not most of their crop's agronomic nutrient needs.

Agronomic rates are generally defined as application rates of nutrients to meet specific crop needs with a certain target yield. These nutrients may be supplied through fertilizer, soil amendments, or waste addition. For landscape wastes 415 ILCS 5/21(q) states "agronomic rates means the application of not more than 20 tons per year, except that the Agency may allow a higher rate for individual sites where the owner or operator has demonstrated to the Agency that the sites soil characteristics or crop needs require a higher rate". In this section of the code it is unclear if the 20 T/acre are dry or wet (as-received) weight. Further, it is clearly demonstrated in other sections of the Illinois Environmental Protection Act as to what the maximum plant nutrient limits (agronomic rates) are for each crop. These agronomic rates are listed in Title 35, Subtitle E, Chapter II Part 560- "Design Criteria for Field Application of Livestock Waste". A parallel set of allowable agronomic nutrient rates are listed in the Illinois Agronomy Handbook – 1997, an authority on agronomic practices. Both the Agronomy Handbook and 35 IAC 560 have more or less similar recommendations for corn and soybeans and in each case the rate is based on bushels of yield for each of these crops.

The Hamman Farms has consistently produced crops with yields of over 250 bushels of corn per acre and 40 bushels of soybeans per acre. In a typical rotation these crops would need on average 240 to 260 pounds of available N, 75 pounds of phosphorus, and 75 pounds of potassium per growing season per acre. Based on chemical analysis conducted by Midwest Laboratories on yard waste material collected on December 5th, 2007, a 20 dry T per acre application rate would supply an estimated 72 pounds of nitrogen during the first year, far short of the agronomic nitrogen needs of the corn crop (240 to 260 lb N/acre). The nitrogen, phosphorus, and potassium supplied by a 20 dry T per acre yard waste application rate falls far short of meeting crop nutrient needs. Even lesser amounts of nitrogen would become available if only 20 T (as-received) were applied per acre.

An application of twenty dry tons per acre is equivalent to a two inch deep layer of ground up waste spread on the land surface. Since a two inch deep layer does not quite meet the agronomic needs of the crops serious consideration should be given to application rates that closely match the nutrient needs of crops (i.e., larger than 20 dry T/acre or more than 2 inch deep layer). Such application rates will eliminate the need for the addition of commercial fertilizers to meet crop needs while offering erosion protection benefits from organic matter build up.

I believe that given the IEPA's ability to afford individual sites discretion with the application rates, the IEPA should accept and permit the higher application rate of 80-100 tons (as-received) per acre as considered in my analysis. The crop rotation and subsequent nutrient demand continue to benefit the higher than normal crop yields along with the otherwise HEL (Highly Erodable Land) concerns. Combining the science with the benefits provided to the landscape waste community, the IEPA should have enough

information and to use their discretion to allow a higher application rate as outlined in the Act.

The Hamman Farms' land spreading operation offers a very important alternative to yard waste disposal to the various communities. At the same time this operation conserves soil/water, and minimizes the use of fertilizer. Hamman Farms believes its application rates are well within the agronomic rates published by IEPA and other recognized institutions. We are willing to meet with members of the Land Bureau and offer our point of view on this matter so we can demonstrate that our application rates are well within the "agronomic rates".

Sincerely,

Aga S. Razvi Ph.D.
Professor of Soil Science
University of Wisconsin-Stevens Point
(715) 346-3618