Wisconsin Department of Natural Resources

EXPANDED SITE INSPECTION WORKPLAN AND SAMPLING PLAN

SITE NAME: Ripon Highway PP Landfill

U.S. EPA ID#: WID980610208

LOCATION: Highway PP, Ripon, Wisconsin
SW ¼ NW ¼ Section 18
T16N, R14E, Ripon Township
Fond du Lac County, Wisconsin

Approvals:

Mike Schnaller, 7/22/91
Prepared By Date

Amy Pasteris, 7/22/91
Approved By Date

Authority: Employees of the State of Wisconsin, under a cooperative agreement with the Environmental Protection Agency, are authorized to take action for the purpose of determining the need for a response (Section 14(e)(1), SARA of 1986).

PROPOSED WORK PLAN

Description Of Work To Be Performed:

Conduct a Site Assessment Expanded Site Inspection (ESI) at the Ripon Highway PP Landfill. The ESI is intended to fill in data gaps noted after the Screening Site Inspection (SSI), in order to prepare a hazard ranking score of the site for possible inclusion on the National Priorities List (NPL). The ESI will consist of the collection and analysis of four sediment and five soil samples to evaluate the Surface Water Pathway of the site.

Date Of Investigation: July 31, 1991

Facility Description and Principal Disposal Methods:

The City of Ripon leased property owned by the Ferd Roeder family for the disposal of municipal, agricultural and industrial wastes from the 1940s to 1966. The site includes a wetland and adjacent uplands and covers approximately 30 acres. The site was operated as an open dump and open burning of waste was a standard practice. The legal description for the site is the SW¼ of the NW¼ of Section 18, T16N, R14E (see Figure 1 - Four Mile Radius Map). Some waste disposal also occurred on the adjacent Lehman property located at the NW¼ of the NW¼ of Section 18, T16N, R14E. Both sites

are located along County Highway PP in Fond du Lac County. (see Site map - Attachment A).

Site History:

The City of Ripon operated the Highway PP site as an unengineered landfill from about 1940 until 1966. During that period, an unknown quantity of household, industrial and agricultural waste was disposed of on site. Much of the paint waste and solvents disposed of by the Speed Queen Company was filled on the upland portion of the site south of the wetland as shown in Figure 1.

The landfill was never a regulated facility because it operated and closed prior to the existence of state hazardous waste laws. The landfill is not properly abandoned or capped based on current engineering standards.

The geology of the area consists of glacially deposited sand, gravel and silt overlying Ordovician and Cambrian sandstones and dolomites. Regional groundwater flow is likely west. Unconsolidated materials range in thickness from 45-100 feet. The depth to groundwater varies from essentially 0 feet on site to a regional depth of approximately 20 feet. The unconsolidated and bedrock aquifers are hydraulically connected and are assumed to be one aquifer.

The on-site wetland is drained by an unnamed tributary of Silver Creek which flows southwest into Green Lake, a major recreational fishing lake in the area. Samples of surface water from the Highway PP site taken in June of 1986 showed elevated levels of some metals, including nickel. It is suspected that these elevated levels are indicative of waste migrating from site.

To date, no enforcement action at the federal, state, or local level has occurred at this site.

In 1988, the WDNR conducted an SSI at this site. At that time, the Department sampled surface water and surface soils at several locations on the landfill. The results of that work were inconclusive. It appears that shallow soils contain elevated levels of PAHs (Polynuclear Aromatic Hydrocarbons), likely the result of waste open burning. Also, it seems that several heavy metals may be in elevated concentrations in the surface water leaving the site. A complete discussion of this work is available in the 1988 report.

Because of the inconclusive evidence from the SSI, an ESI is being conducted to determine the conditions of the surface water pathway.

In addition, the Department is currently working with the City of Ripon to conduct more extensive field studies at this site to better determine potential environmental impacts.

Status (Active, Inactive,Unknown):

The landfill has been abandoned since approximately 1966.

Waste Types:	Solid - Likely a mixture of residential, commercial and industrial wastes Liquid - Yes (Waste Solvents and paint) Sludge - Unknown
Characteristics:	Ignitable: Possible Volatile: Yes Radioactive: No Reactive: Not suspected Toxic: Yes
Inspection Priority:	Medium

PROPOSED SAMPLING PLAN

Objectives:

This plan is being developed to provide detailed instructions for activities that will take place on site, including assignment of specific tasks to individuals. Specific objectives of the ESI include:

A. obtaining four sediment samples and analyzing them for volatile organics, semi-volatiles/pesticides/PCBs, and metals;

B. obtaining five soil samples and analyzing them for volatile organics, semi-volatiles/pesticides/PCBs, and metals;

C. determination of whether materials are migrating off-site and potentially causing contamination of surrounding areas. The surface water and sediment samples are to be taken to determine whether contaminants are leaving the site through surface water or sediment transport.

Inspection Leader: Michael Schmoller

Site Personnel:

Team Member	Responsibilities
Darsi Foss	Sediment Sampling, Soil Sampling, Packaging
Jamie Dunn	Sediment Sampling, Soil Sampling, Packaging

Amy Parkinson Sediment Sampling, Soil Sampling, Packaging, Paperwork

Procedures:

All samples will be collected according to accepted field procedures. One trip blank (distilled water), a rinse blank, and field duplicate samples for each matrix type will be collected, along with the appropriate matrix duplicates for QA/QC purposes (see Attachment C For Sampling Review). All field data will be recorded in a field notebook.

Sample Locations (Attachments B and C):

Four sediment samples and five soil samples will be taken. The sample locations will be selected on site to best describe possible offsite migration of waste. The sediment sample locations will include: three samples in the stream adjacent to the site and a "background" sample in different branch of the creek, upstream (see Figure 1 and Attachment B). The soil samples will be collected in the wetlands. Locations of soil samples will be dictated by on-site conditions.

Methodology:

Sediment Sampling

Obtaining a sediment sample will consist of collecting sufficient material to fill one 8 oz. jar for metal analysis, one 8 oz. jar for semi-volatile/ pesticide/PCB analysis, and two 120 ml jars for analysis of volatiles. Each of the samples shall be a composite of material from a single boring (if possible) of bottom sediment.

The samples are expected to be obtained from the sediment/water interface to an approximate depth of one foot. They will be obtained using dedicated sections of transparent coring tube, (cellulose acetate butyrate), that will be forced into the bottom sediments by hand to an approximate depth of one foot, (the coring tubes will have been thoroughly washed with Alconox and tap water, acid rinsed (nitric), and rinsed with distilled water prior to use). A rubber stopper of appropriate size will be placed over the upper end of the coring tube to facilitate removal of the tube from the bottom sediment for extraction of the sample material. Loose material such as twigs, rocks, or trash, will be removed and not included in the sample. As an alternative a polyethylene dipper will be employed to obtain the sediment sample.
VOA samples jars will be filled as soon as sample collection is completed with as little handling or disturbance as possible.

Hip boots or waders will be available for access to collect the samples.

Soil Sampling

Obtaining a soil sample will consist of collecting sufficient material to fill one 8 oz. jar for metal analysis, one 8oz. jar for semi-volatiles/pesticides/PCB analysis, and two 120 ml jars for analysis of volatiles. The samples will be taken as site conditions dictate. Depths of sample will be between 0 to 2 feet. Each sample will be a grab sample from a noted depth.

The samples will be obtained using a stainless steel bucket auger. Loose surface material, grass or gravel shall not be included in the sample.

Augered material will be taken directly from the auger. VOA sample jars will be filled as soon as possible with as little handling or disturbance as possible.

Upon completion of each soil sample boring, each hole produced will be backfilled with a mixture of bentonite and native material to aviod infiltration of any surface contaminants into the ground.

Additional Comments

Between collection of every sample and after sampling is completed the sampling equipment shall be decontaminated by scrubbing with a brush, Alconox, and tap water, and then rinsing with distilled water. Cleaning and rinse waters will be collected in pails and properly disposed of. Fresh wooden tongue depressors will be used for each sample; all used depressors will be discarded.

All appropriate information such as field measurements, sample I.D. numbers, person obtaining and handling samples, etc., will be recorded in a sampling field notebook.

After sample bottles are filled, they will be clean rinsed with tap and/or distilled water for handling and transport. Equipment will be cleaned in the decontamination area where practical. Discarded items (i.e., Tyvek suits, masking tape, etc.) will be placed in plastic trash bags, removed from the site and disposed of at the WDNR office.

The date and time of sampling will be recorded on each sample bottle or jar. The sample bottles or jars will then be kept cool until packaging.
No preservation of soil or sediment samples will be performed. The sampling and safety equipment available for use onsite are listed in **Attachment D.**

Quality Control:

The sample containers are provided through the Contract Laboratory Program. It is expected that they will comply with exhibit F of the QAPP. Chain of custody in document control will be according to exhibit G of this reference

Logistics:

Equipment and personnel will be transported to the site from WDNR Southern District office in a state-owned vehicle and a leased van modified for sampling projects of this nature. Samples will be taken to Fitchburg and sent via Federal Express to the appropriate contract laboratory. The Federal Express office is located in Madison.

Sampling Report

A sampling report will be prepared by WDNR personnel after completion of sampling. This report will summarize personnel present, equipment used, problems encountered, deviations from the Workplan/Sampling Plan and other appropriate information regarding the sampling process. The report will be submitted to Robin Schmidt - Bureau of Solid and Hazardous Waste, WDNR, Madison, WI. for proper distribution.

Level Of Protection Required (A, B, C, D):

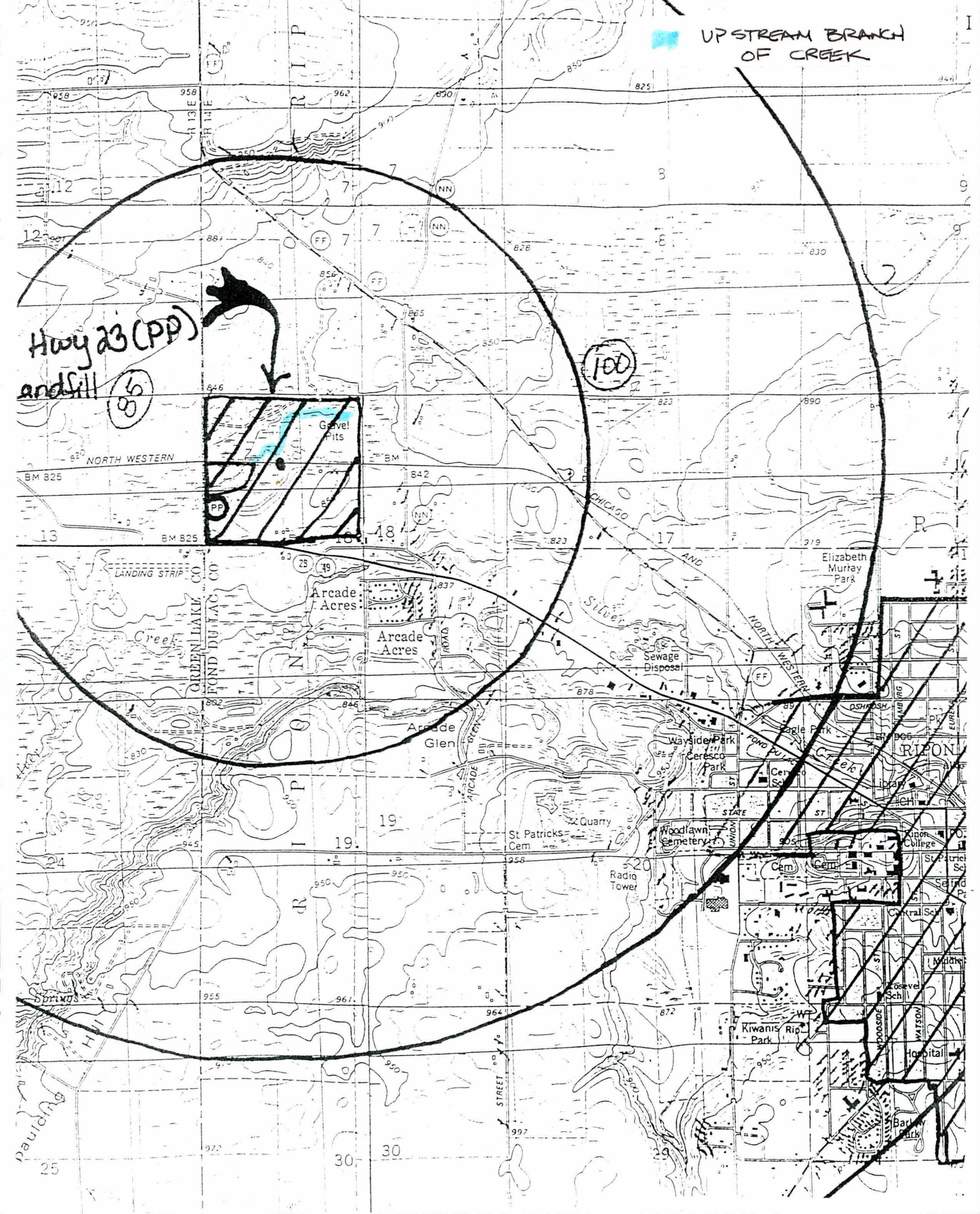
Level D - Air monitoring will be performed on a periodic basis while on site, with specific monitoring of sample sites to ensure the adequacy of the level of protection selected. Disposable Tyvek coveralls, Tyvek aprons, Tyvek sleeves, Neoprene boots, disposable latex and Nitrile gloves, and safety glasses or goggles will be utilized while on site. Hardhats may be utilized. Air purifying respirators shall also be available should an upgrade in the level of protection be required. Should air monitoring indicate a need for such an upgrade, work will be postponed until the contaminant(s) responsible are identified and conditions re-evaluated.

Field Work Required:

Sampling:	Groundwater	-	No	Surface Water	- No
	Sediment	-	Yes	Air - Monitoring	Only
	Soil	-	Yes	Waste	- No
	Other	-	No		

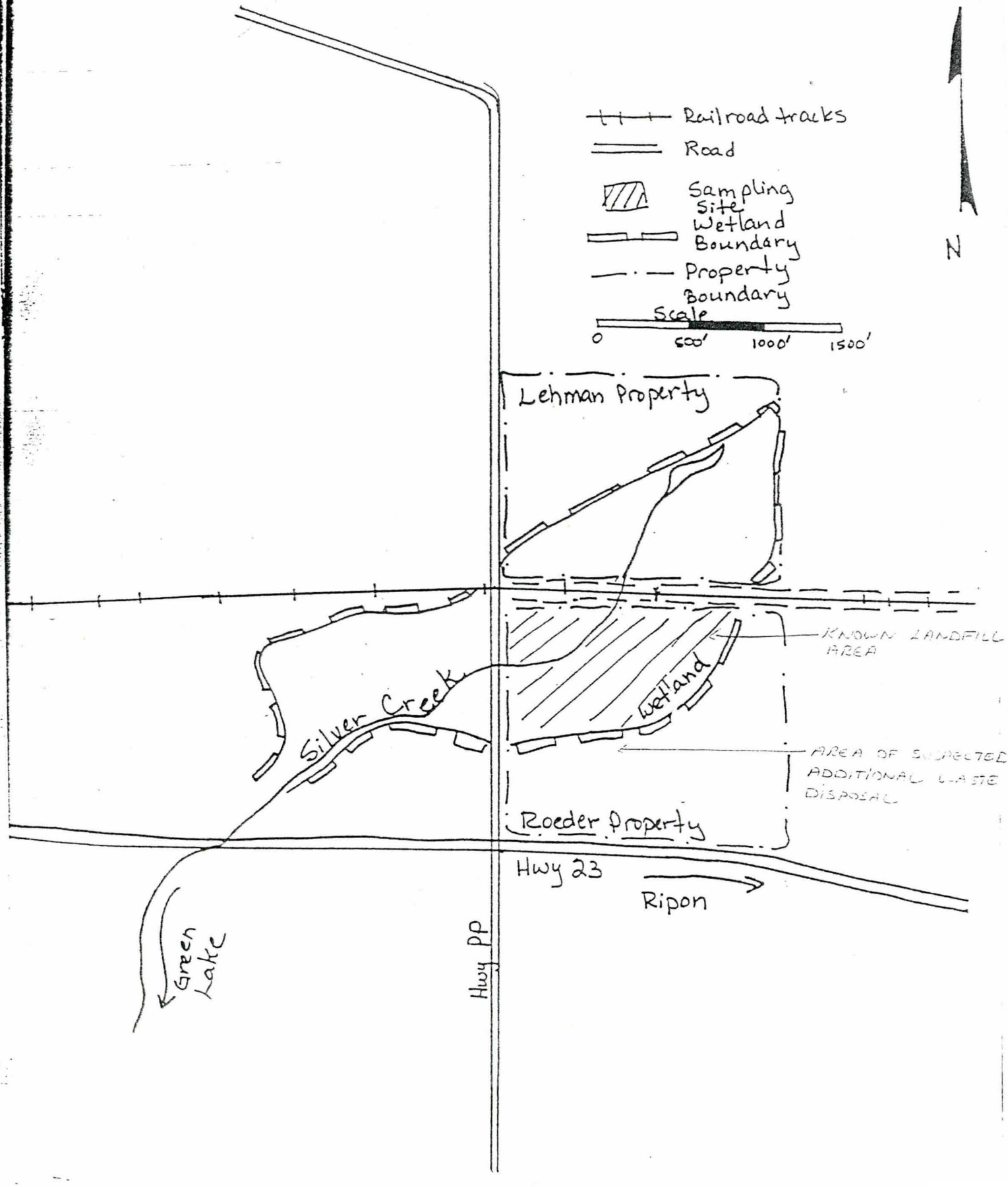
CONTRACT LAB SCHEDULED:	To be determined
DRILLING: State: No	FIT: No
DRILLING SITE INSPECTION WORKPLAN SUBMITTED:	N/A
DRILLING SAFETY PLAN SUBMITTED:	N/A
SITE SAFETY PLAN SUBMITTED:	Yes
PRELIMINARY ASSESSMENT SCORESHEETS SUBMITTED:	Yes
SCHEDULED DATE OF SAMPLING:	July 31, 1991
DISTRICT CONTACT: Michael Schmoller	
JUSTIFICATION IF NO SAMPLING:	N/A

FIGURE 1


UPSTREAM BRANCH OF CREEK
Hwy 23 (PP) andfill
Gravel Pits
NORTH WESTERN
CHICAGO AND NORTH WESTERN
Arcade Acres
Arcade Glen
LANDING STRIP
GREEN LAKE CO
FOND DU LAC CO
Silver Creek
Sewage Disposal
Elizabeth Murray Park
Wayside Park
Ceresco Park
Eagle Park
RIPON
St Patricks Cem
Quarry
Woodlawn Cemetery
Radio Tower
Ripon College
Central Sch
Kiwanis Park
Hospital
Springs
STREET
ARCADE
OSHKOSH
STATE
UNION

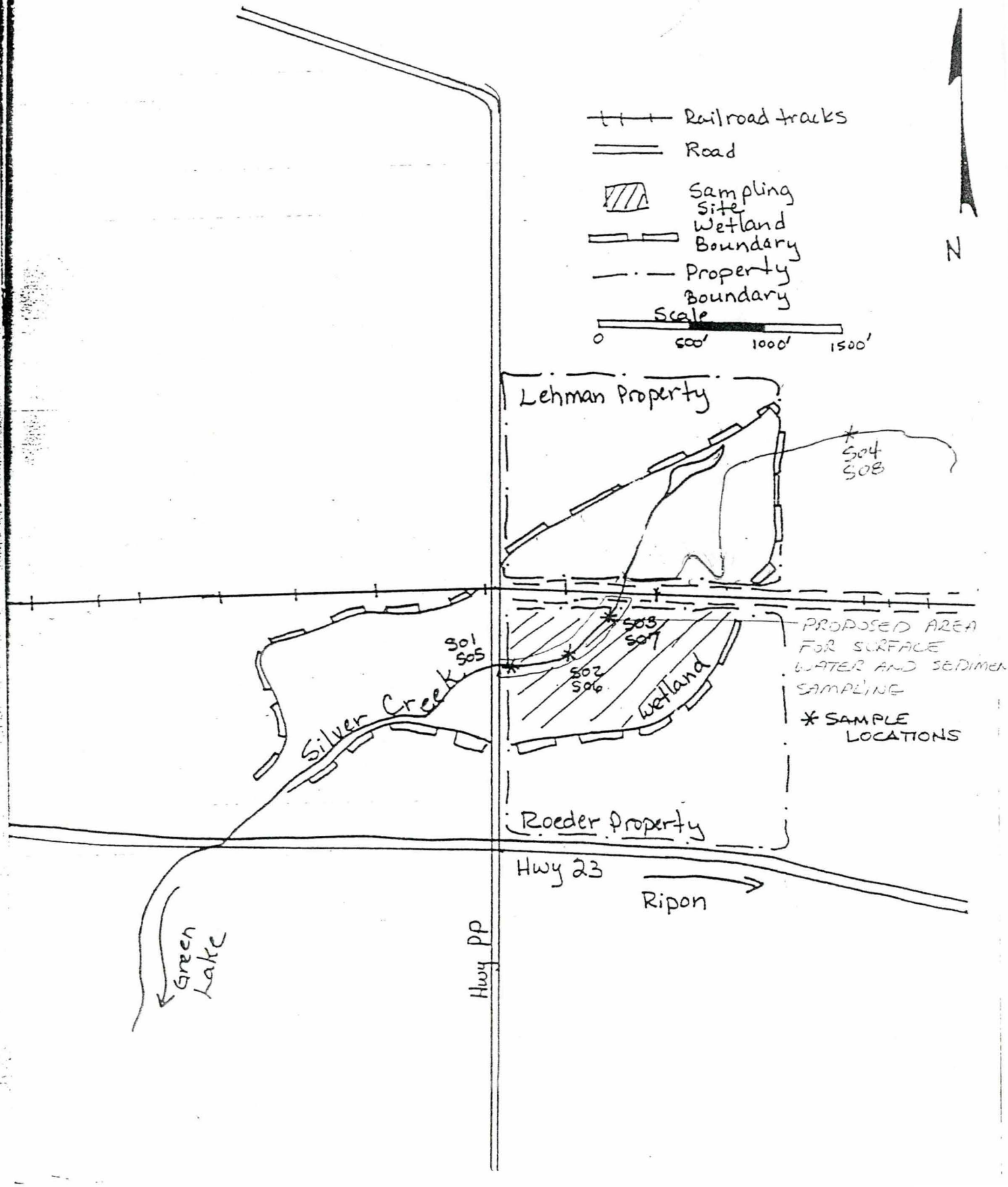
ATTACHMENT A

Ripon Hwy 23 (PP) Site



ATTACHMENT B

Ripon Hwy 23 (PP) Site



ATTACHMENT C

Sampling Review

Sediment Samples

S-01 Silver Creek - Near Roeder property line - west
S-02 Silver Creek - Midway through site
S-03 Silver Creek - Near Roeder property line - north
S-04 Silver Creek - Up stream branch to northeast (Background Sample)
D-02 Duplicate of S-02

No Addition of Preservatives
Volatile and Semi-Volatile/Pesticides/PCB Samples will be cooled
Sample Bottles/Jars per Sample

Volatiles	2 - 120 ml
Semi-Volatile/Pesticides/PCB	1 - 8 oz (or 2 - 4 oz)
Metals	1 - 8 oz (or 2 - 4 oz)

Soil Samples

S-05 Wetlands/waste (sample locations as site conditions dictate)
S-06 Wetlands/waste
S-07 Wetlands/waste
S-08 Wetlands/waste
S-09 Wetlands/waste
D-06 Duplicate of S-06

No Addition of Preservatives
Volatile and Semi-Volatile/Pesticides/PCB Samples will be cooled
Sample Bottles/Jars per Sample

Volatiles	2 - 120 ml
Semi-Volatile/Pesticides/PCB	1 - 8 oz (or 2 - 4 oz)
Metals	1 - 8 oz (or 2 - 4 oz)

ATTACHMENT D
Sampling and Safety Equipment

Safety Equipment
Air Purifying Respirators
Fire Extinguisher
First-Aid Kit
HNU Meter, Model PI 101
Portable Eye/Face Wash Unit

Personnel Clothing and Equipment (LEVEL D)
Boots (neoprene or leather safety/steel toe and/or shank)
Hardhats
Hip Boots and/or Waders
Inner Latex Gloves (disposable)
Cloth Glove Liners
Duct Tape
Outer Gloves (neoprene or suitable composition)
Outer Boot Covers (disposable)
Plastic Aprons
Safety Glasses or Goggles
Tyvek Suits (one piece/disposable)
Plastic Sheeting (ground cover)
Rinse Bottles
Rubber Stoppers for Coring Tubes
Sample (Pond) Dipper
Sample Preservation Kits
Shovel
Soil Sampling Kits
Sponge Sweat Bands
Stainless Steel Sampling Spoons - Longhandle
Stainless Steel Sampling Trowels/Spoons
Tongue Depressors
Transfer Bottles

Support Equipment and Office Supplies
Air Bills
Calculator
Camera and Film
Chain-of-Custody Forms
Coolers (sample shipment)
Drinking Water Dispensers
Field Book
Ice (sample preservation)
Indelible markers, pens, and pencils
Overhead Tarp (with rope and stakes)
Perimeter marking tape
Polyethylene Bags (various sizes for bottles)
Receipts for Samples
Sample Label Tags
Sampling Van
Tape (masking, cellophane, and strapping)
Tool Kit
Traffic Reports (Organic and Inorganic)
Vermiculite (packaging material)

Decontamination Equipment
Aluminum Foil
Brushes
Carboys (distilled-quantity 3)
Detergent (Alconox)
Distilled Water - Gallon Bottles
Drinking Water Cups
Hand and Face Soap
Paper Toweling
Trash Bags
Wash Tubs