PRELIMINARY ASSESSMENT/ SITE INSPECTION WORK PLAN
for
C & M Ag
CORWITH, HANCOCK COUNTY, IOWA

September, 2000

IOWA DEPARTMENT OF NATURAL RESOURCES

Prepared by

Daniel Cook
IDNR Project Manager
Contaminate Sites Section

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1. INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Iowa Department of Natural Resources (IDNR) Environmental Protection Agency, Central Office will conduct a Preliminary Assessment (PA) and a Site Inspection (SI) at the C&M Ag site in Corwith, Hancock County, Iowa. The purpose of this investigation is to collect information concerning conditions at the C&M Ag site, to assess the threat posed to human health and the environment, and to determine the need for CERCLA/SARA or other appropriate action. The investigation will include a site reconnaissance of the facility, and to investigate any potential threats to public health or the environment.

2. SITE DESCRIPTION

2.1 Location

C&M Ag is located at 203 Morton Street in the SW 1/4 of the NE 1/4 of Section 6, T94N, R26W of Corwith, Iowa in Hancock County.

2.2 Site Description

The facility is not well maintained. There were numerous empty chemical containers strewn about the site. Several areas of dead or no vegetation were observed on-site and off-site.

The primary structure is an office building.

Six abandoned above ground tanks were located northeast of the office building. No fertilizer has been stored in these tanks since the berm requirements went into effect (approximately 3 years ago). There was an area of dead vegetation leading about 50 feet to the southeast from the southeast corner of the tanks.

2.3 Operational History and Waste Characteristics

The site has been used as an Ag Chem dealership since 1964. It has been owned by Cecil Glawe for about 15 years.

FO 2 received a complaint concerning possible spillage of agricultural chemicals at the site. An investigation was conducted on August 24, 1999. There was no one at the facility at the time of the investigation (messages were left at two numbers to call that were listed at the office). Samples were collected for on-site screening analysis of ammonia and off-site laboratory analyses of fertilizer and herbicide compounds.

The following conditions were observed during the investigation:

A concrete containment basin south west of the office building. The basin contained some liquid, chemical containers and pumps. The only chemical stored in the basin in 1999 was Surpass.

There was an area of no vegetation starting at the north end of the basin and extending 300 feet southeast to Clinton Street. There was also an area of no vegetation to the south west of the basin.

A concrete pad (for loadout and rinsing) near the containment basin. The pad has a collection sump which is used to remove liquids for land application. There was liquid ponded on the pad.

There was an old dilapidated building located southwest of the pad and containment basin. The building contained numerous empty chemical and lubricant containers. The containers were 5-10 gallons in size with a few 55-gallon drums.

There is a scale pit in front (northwest side) of the office building. This pit contained some liquid.

There was an anhydrous nurse tank, a tank wagon and tank truck parked along the drive that runs in front of the building. Dead vegetation was observed on both sides of the tank truck. Dead vegetation was also observed southwest of the anhydrous tank.

FO 2 discussed the site visit with Mr. Glawe on August 25, 1999. During this conversation, the FO 2 discussed the prohibition against burning the dilapidated building other than through a bona-fide training fire. The letter report of the complaint investigation was sent to Mr. Glawe on September 21, 1999. The letter explains the site is being referred to Contaminated Sites Section for follow-up. The letter also identifies interim actions which should taken. These included: Removing the contaminated water from rinse pad and containment structure for land application at proper rates. Pick-up all container strewn about the site, have them triple rinsed and disposed at the landfill chemical container recycle site. The letter also emphasized the Chapter 131 notification requirements and the prohibition against open burning or open dumping of the dilapidated building.

FO 2 conducted a follow-up visit on October 6, 1999. Most of the empty containers had been cleaned up (triple rinsed and stored at a building on Mr. Glawe's farm). Waste Management, Algona, had taken the old storage building to the Kossuth County landfill. There was a dumpster for cleaning up other waste at the site. There was no evidence of open burning. Mr. Glawe was again informed that further action would be taken by the Contaminated Sites Section.

3. COLLECTION OF NON-SAMPLING DATA

Non-sampling data collection will include: (1) surveying the interior of buildings and open spaces at the facility to find where the chemicals may have been stored, (2) taking photographs of the site, (3) identifying surface water pathways, and (4) inquiring about the present operations at the facility.

4. FIELD ACTIVITIES

Field personnel are scheduled to travel to the site on September 14 and 15, 2000. The Iowa Department of Natural Resources has requested access to the site. All non-sampling information will be collected in no more than two days.

Field work will begin with briefing personnel on the site safety plan if required.

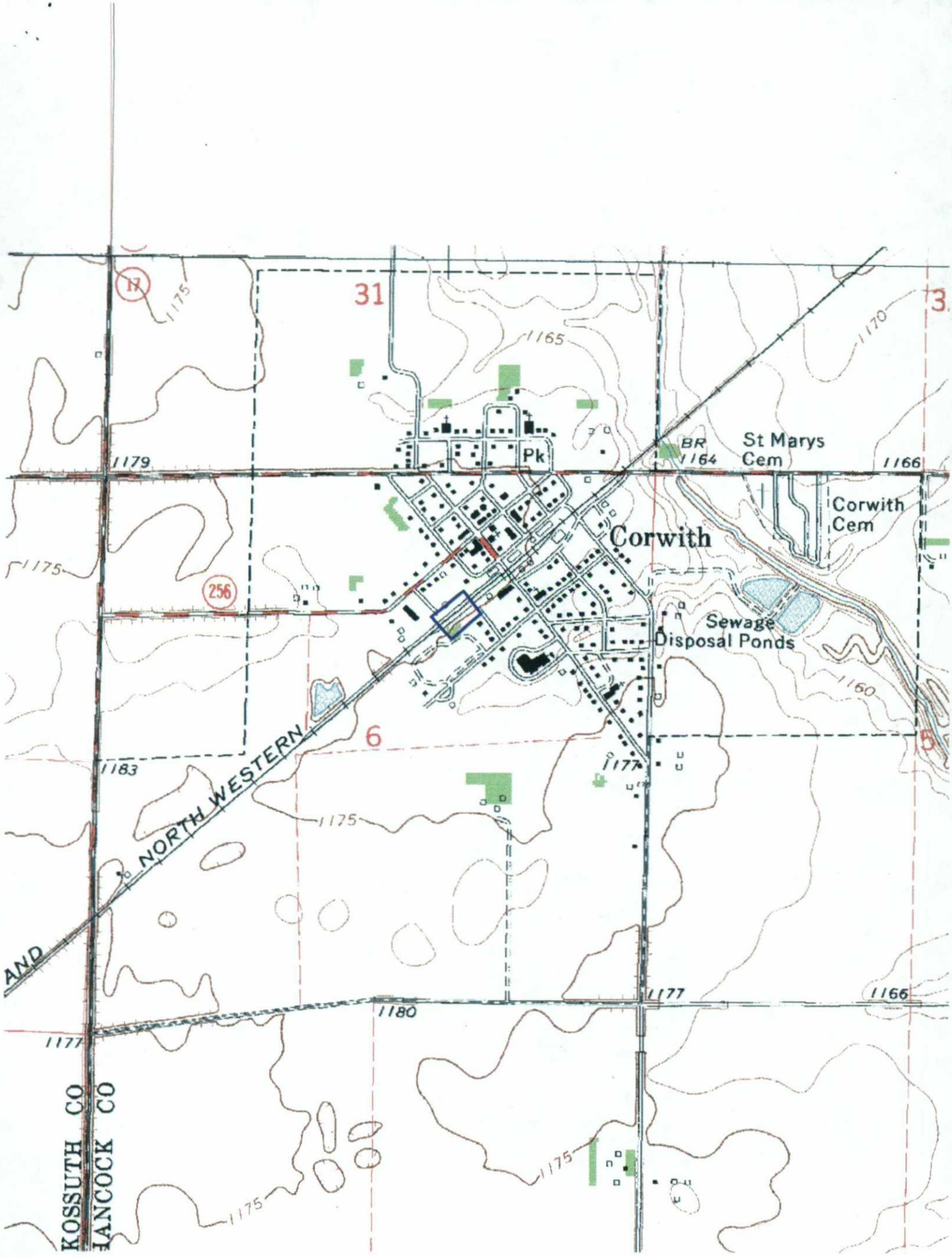
5. PROJECT MANAGEMENT

The project manager for the C&M Ag site PA/SI, Daniel Cook, will schedule field activities and personnel requirements, verify site access authority, direct and oversee all IDNR onsite and offsite activities associated with the investigation.

Field activities will be performed in Level D. IDNR staff will exit the site if Level C personal protection or higher is required.

6. REFERENCES

SITE INSPECTION SAMPLE PLAN MODIFICATIONS
C&M Ag
Corwith, Hancock County, Iowa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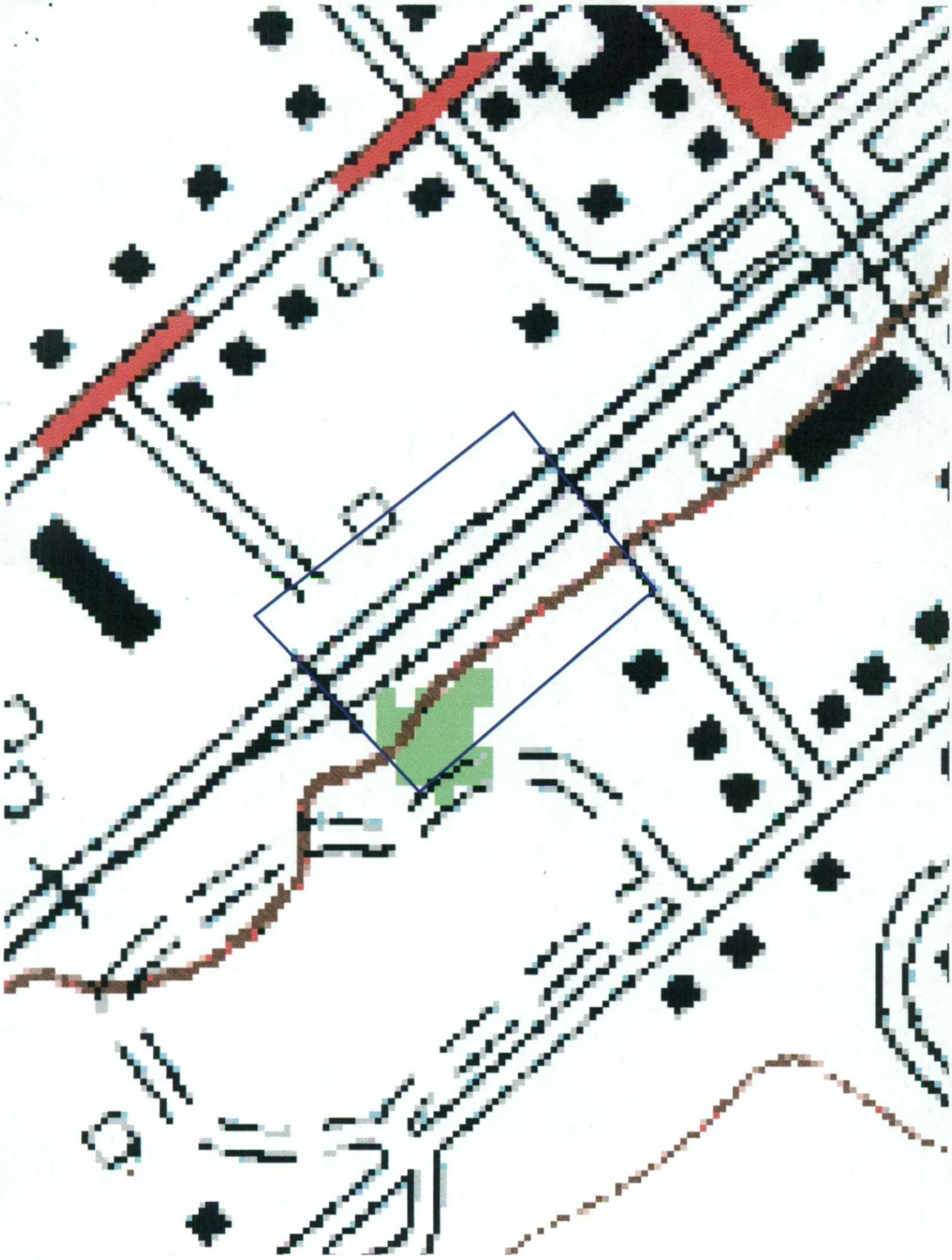

IOWA DEPARTMENT OF NATURAL RESOURCES

SITE SAFETY PLAN
FOR
C&M Ag

September, 2000

Prepared by

Daniel Cook
IDNR Project Manager
Contaminated Sites Section

I. TEAM ORGANIZATION AND TRAINING

Member	Organization	Work Assignment	Safety Training
Daniel Cook	IDNR	Project Manager	HAZWOPER Training (11/13-17/95) 8-Hour Safety Training (2/3-4/2000) Standard First Aid (12/9/99) Adult CPR Review (12/9/99)
Piper Koehler	Iowa DNR	Site Worker	40 Hour HAZWOPER (7/00)

Annual physical is required for all site personnel.

II. GENERAL INFORMATION

Site Location: The site is located at 203 Morton Street in the SW 1/4 of the NE 1/4 of Section 6, T94N, R26W, in Corwith, Hancock County, Iowa.

Date of Visit: September 14 and 15, 2000

Weather Conditions:

Summary of (Known, Alleged, Potential) Problems:

Site Contact(s):

Name	Address	Telephone Number
Cecil Glawe	Box 38 203 Morton Street Corwith, Iowa 50430	Office (515) 583-2487 Home (515) 583-2416

III. SITE CHARACTERISTICS

Type of Site: Ag-chem X Coal Gas __ Ind. Dump ___

Ind. Leak/Spill___ Munic. Dump ___

Other (explain): UST leakage __ _

Topography (map included - yes X no __):

Site Map (included - yes X no __):
Identify exclusion zone, contamination reduction zone, and support zone if applicable.

Site Access: Open __ Closed __ Limited __ Other ___

Superfund Status: ID __ PA X SI X RI/FS __ Other ___

None (State Authority) ___

IV. WASTE CHARACTERISTICS AND HAZARD EVALUATION

Type of Contaminant(s): Metals __ Pesticides X VOCs __ Semi-vol __ PCBs ___

Sludge __ Other Nitrates and Ammonia

Chemical Substances (Present or Potential):

Substance Name	Concentration (ug/L)	Exposure Route	Health Hazards
Nitrogen	260,000	Not Available	Not Available
Ammonia	100,000	Inh, Ing, Con	Eyes, Skin, Resp sys
Atrazine	22	Inh, Ing, Con	Eyes, Skin, Resp sys, CNS, Liver
Cyanazine	51	Not Available	Not Available
Metolachlor	1,800	Not Available	Not Available
Alachlor	1,800	Not Available	Not Available
Trifluralin	1,700	Not Available	Not Available
Acetochlor	40,000	Not Available	Not Available

Inh - Inhalation
Abs - Skin Absorption
Ing - Ingestion
Con - Skin and/or eye contact

References(s): U.S. Department of Health, 1990, *NIOSH Pocket Guide to Chemical Hazards.*

Threshold Limit Values:

Substance Name	TWA (ppm)	STEL (ppm)	IDLH(ppm)
Nitrogen	Not Available	Not Available	Not Available
Ammonia	25	35	300
Atrazine	5	Not Available	Not Available
Cyanazine	Not Available	Not Available	Not Available

Threshold Limit Values Continued

Substance Name	TWA (ppm)	STEL (ppm)	IDLH
Metolachlor	Not Available	Not Available	Not Available
Alachlor	Not Available	Not Available	Not Available
Trifluralin	Not Available	Not Available	Not Available
Acetochlor	Not Available	Not Available	Not Available

TWA - Time Waited Average (8 hours)
STEL - Short Term Exposure Limit (15 minutes)
IDLH - Immediately Dangerous to Life and Health
* - Suspected Human Carcinogen

Reference(s): U.S. Department of Health, 1990, *NIOSH Pocket Guide to Chemical Hazards.*
ACGIH, 1992, *1992-1993 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices*

List the **physical**, **biological**, or **radiological** hazards.

Observed Release: yes X no __ If yes, describe:

Multiple fertilizer and pesticide spills have been noted but the owner indicates nothing above a few gallons.

Hazard Potential (Explain the low, medium, or high rating):

Air (***low***, medium, high): There has been no observed release to air and the contaminants are located below the surface.

Soil (***low***, medium, high): Soil contamination has been detected, personnel will be exposed to soil contaminants if samples are collected and protective clothing will be worn during the sampling ks.

Surface Water (***low***, medium, high): There has been no observed release to surface water. The nearest surface water is a lake which is not onsite. There is the potential for release via normal groundwater movement.

Groundwater (***low***, medium, high): There has been a release to groundwater but the water table is encountered about 13.5 feet below the surface. Personnel will be exposed to groundwater contaminants if samples are collected and protective clothing will be worn during the sampling.

Are there any specific/unusual hazards that site activity may create? yes __ no X If yes, describe:

Overall Hazard Summary: Low X Medium __ High __

V. MEDICAL SURVEILLANCE

State of Iowa Department of Natural Resources personnel and subcontractors involved in site operations are under a Medical Surveillance program. They receive physicals annually and are giving permission by physicians to wear the required field gear (respirators, protective clothing, etc.).

The physical includes studying the work history, family history, and medical history of each field personnel by a physician, along with cardiopulmonary function tests, a physical examination, visual and hearing tests, blood tests, etc.

VI. PERSONNEL PROTECTION AND SAFETY

Level of Protection: A __ B __ C __ D X

The department will not enter any site requiring personal protection higher than a **Level D**.
Protective Gear (Limit field operations during extreme cold or hot and dress accordingly.):

Level D: A work uniform affording minimal protection. Used for nuisance contamination only.

__ Escape Mask *
__ Protective Coverall (Type) _____
__ Rain Suit *
X Gloves (Type) latex _____ *
__ Hard Hat *
__ Face Shield *
X Safety Glasses or Chemical Splash Goggles
X Safety Boots, Chemical-Resistant Steel Toe and Shank
__ Long Sleeve Shirt
__ Level D modifications Tyvek may be worn during sampling
X Ear Plugs

* Optional, if applicable
Reference: 29 CFR 1910.120

Monitoring Equipment:

Start-up procedure: Carefully inspect each piece of equipment prior to work start-up. Failure of any of the equipment to work properly must be reported to the Project Manager.
RAE ppb: Will use an RAE ppb to establish background levels. Before work is initiated, the RAE pbb will be used to monitor the work areas. **Use Discretion**.

Action Levels: Background -- Level D
1-5 ppm above background -- Level C
> 5 ppm above background -- Level B

Decontamination Procedure

Personnel: Wash boots in soap and water, rinse.
Wash outer gloves in soap and water, rinse and remove or discard.

Remove coveralls and discard.
Remove inner gloves and discard.

Sampling Equipment: Wash all equipment in soap and water.
Rinse in tap water.
Rinse in deionized water.

Monitoring equipment: Wipe down equipment with soap and water.
Wipe with deionizedd water.

If field work is conducted in cold weather, contaminated clothing and equipment that cannot be discarded will be placed in a plastic bag and decontaminated off-site at a more suitable location.

Site Entry Procedures:

Locate nearest available telephone.
Post emergency telephone numbers and route to the hospital.
Determine wind direction and set up decontamination area.
Perform initial air monitoring survey if necessary.

VII. **EQUIPMENT CHECKLIST**

Instrumentation:

__ OVA (Foxboro)
__ Gas Chromatograph (Sentex)
__ HNu Meter
__ pH Meter
__ Temperature Meter
__ Conductivity Meter
__ EM-31 Conductivity Meter
__ Magnetic Cable/Pipe Locater
__ Water Level Indicator
__ Radiation Meter
__Measuring Wheel
__ _____

Decontamination Equipment:

__ Wash Tubs
__ Buckets
__ Detergent
__ Deionized Water
__ Trash Bags
__ Chem Wipes
__ Scrub Brushes
__ Sprayer
__ Tap Water
__ Plastic Sheeting
__ Paper Towels
__ _____

__ _____

Sampling Equipment:

__ Pumps and Tubing
__ Rope
__ Trowel
__ Bottles:
__ Vials
__ Bailers
__ Auger Kit
__ Spoons
__ Ice Chest(s)
__ Small Bags

__ 8 oz Bottles
__ Quart Jars
__ Pint Jars
__ Trash Bags
__ Ice Bags
__ _____

Miscellaneous Equipment:

__ Duct Tape
__ Masking Tape
__ Tool Kit
_x_ Camera
_x_ Film
__ Binoculars
__ _____
__ _____
__ _____
__ _____
__ _____
__ _____

VIII. **EMERGENCY MEDICAL CARE AND RESPONSE PLAN**

First-aid equipment is available on site at the following locations:

First-aid kit: In the Geoprobe Van
Emergency eye wash: _____

If injury occurs, take the following steps:

Prevent further injury.
Notify the site safety officer.
Initiate first aid and get medical attention.
Maintain accurate records of any exposure of site workers or potential exposure during emergencies.

If a chemical release, fire, or explosion occurs:

Evacuate team members to an upwind location.
Notify the site safety officer.
Call the fire department - DO NOT HANG UP UNTIL DIRECTED TO DO SO!!
Meet and update the fire department when they arrive.

The fire department then assumes command.

IX. EMERGENCY TELEPHONE NUMBERS

AMBULANCE: 911 FIRE: 911 POLICE: 911

HOSPITAL: Name: Hancock County Memorial Hospital
532 1st Street SW
Britt, Iowa 50423

Travel Time: 15 minutes

ENVIRONMENTAL & CHEMICAL SPILLS: Iowa DNR Emergency Response 1-515-281-8694

POISON INFORMATION OR POISON CONTROL: 1-800-362-2327

HAZMAT UNIT: Not applicable

EXPLOSIVE EXPERTS: Not applicable

GAS COMPANY (Natural Gas):

POWER COMPANY:

TELEPHONE COMPANY:

EMERGENCY ROUTE (Identify on map): Go east on P66 then north on R35 to Britt, Iowa then west on 1st street five blocks to the hospital.

X. All site personnel have read the above plan and are familiar with the provisions.

NAME	SIGNATURE	DATE
Daniel Cook		9-14-00
Piper Koehler		9-14-00

SITE SAFETY PLAN MODIFICATIONS
C&M Ag, Corwith, Hancock County, Iowa

YAHOO! YELLOW PAGES

Welcome, Guest User

532 1st St NW, Britt, IA

Hancock County Memorial Hosp
532 1st St NW, Britt, IA 50423
(641) 843-3801

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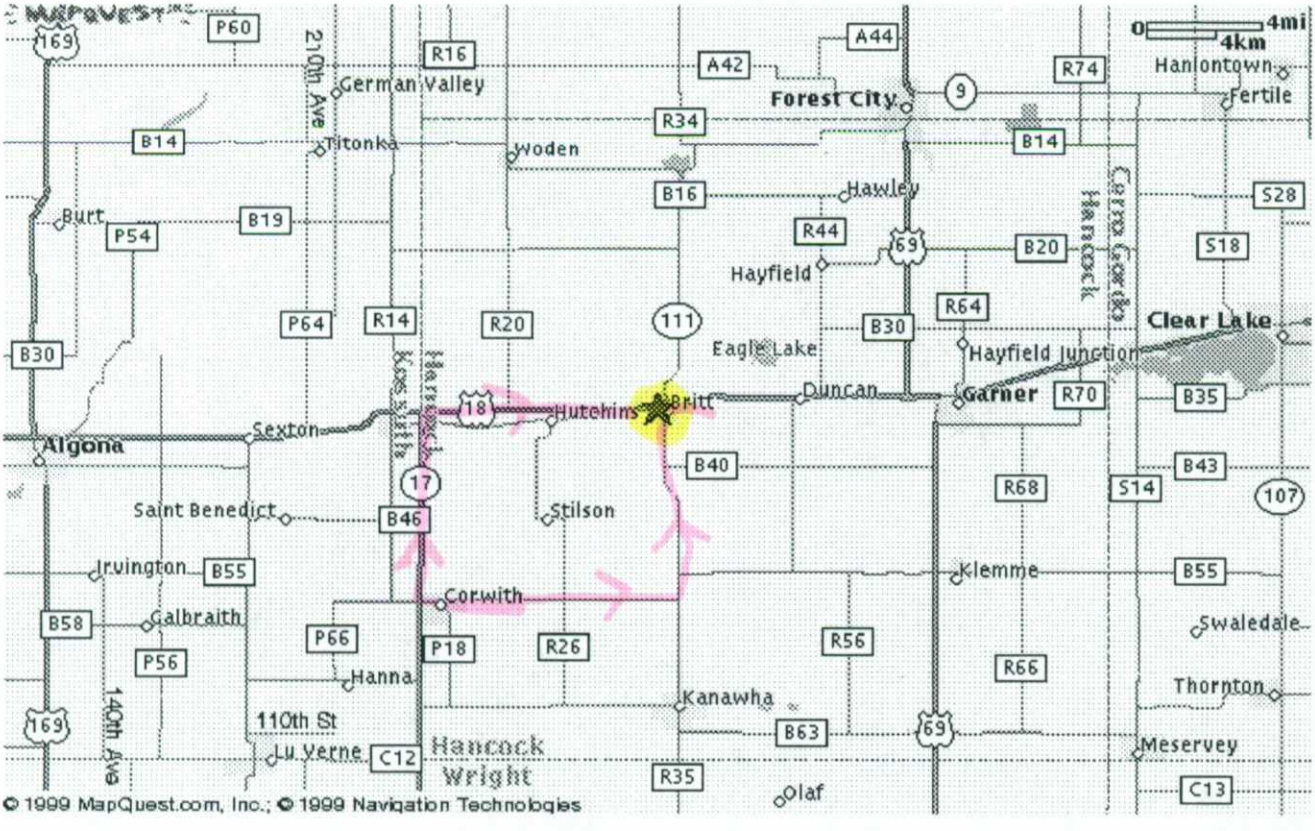

532 1st St NW, Britt, IA New Search

Hancock County Memorial Hosp
532 1st St NW, Britt, IA 50423
(641) 843-3801

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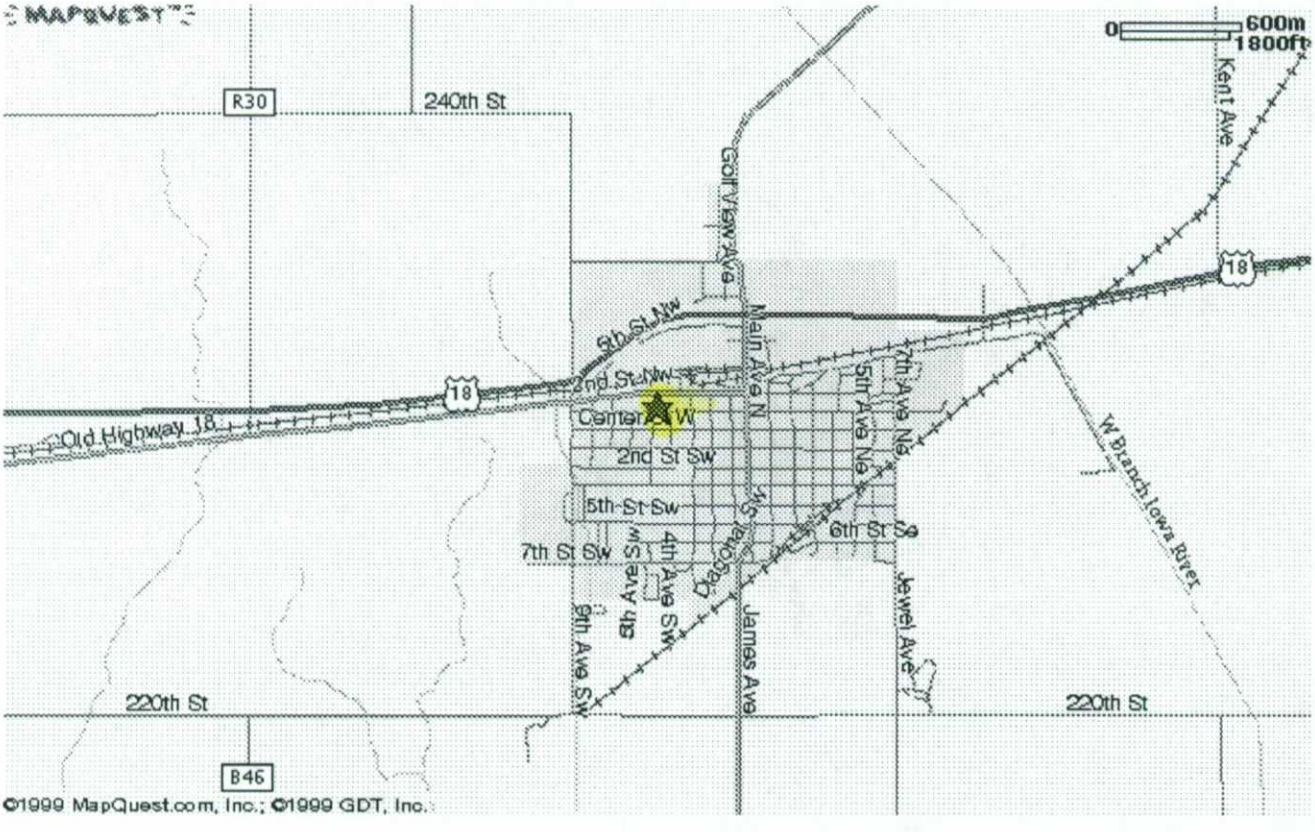

SITE-SPECIFIC ADDENDUM
for the
GENERIC
CONTAMINATED SITES SECTION
QUALITY ASSURANCE PROJECT PLAN

PROJECT INFORMATION:

Site Name: C&M Ag	Project Manager: Daniel Cook
City: Corwith	County: Hancock

APPROVALS:

Susan Dixon
IDNR, Land Quality Bureau Chief
Bureau QA Officer

9/8/00
Date

(Position Vacant)

IDNR, Contaminated Sites Supervisor

9/8/00
Date

1. PROJECT MANAGEMENT

1.1 Distribution List

Project Manager:
Field Personnel:
Contaminated Sites Section Supervisor:
Land Quality Bureau Chief:

1.2 Project /Task Organization

IDNR Project Manager:

IDNR QA Officer:

1.3 Problem Definition/Background

This is a site-specific addendum for the generic *Quality Assurance Project Plan for the IDNR Land Quality Bureau Contaminated Sites Section,* dated May 2000. This addendum describes the specific sampling activities for the site described below.

Site Location and Size:

C&M Ag
203 Morton Street
Corwith, Iowa 50430
The SW 1/4 of the NE 1/4 of Section 6, T94N, R26W

Important Physical Features:

FO 2 received a complaint concerning possible spillage of agricultural chemicals at the site. An investigation was conducted on August 24, 1999. There was no one at the facility at the time of the investigation (messages were left at two numbers to call that were listed at the office). Samples were collected for on-site screening analysis of ammonia and off-site laboratory analyses of fertilizer and herbicide compounds.

The following conditions were observed during the investigation:

A concrete containment basin south west of the office building. The basin contained some liquid, chemical containers and pumps. The only chemical stored in the basin in 1999 was Surpass. There was an area of no vegetation starting at the north end of the basin and extending 300 feet southeast to Clinton Street. There was also an area of no vegetation to the south west of the basin.

A concrete pad (for loadout and rinsing) near the containment basin. The pad has a collection sump which is used to remove liquids for land application. There was liquid ponded on the pad.

There was an old dilapidated building located southwest of the pad and containment basin. The building contained numerous empty chemical and lubricant containers. The containers were 5-10 gallons in size with a few 55-gallon drums.

There is a scale pit in front (northwest side) of the office building. This pit contained some liquid.

There was an anhydrous nurse tank, a tank wagon and tank truck parked along the drive that runs in front of the building. Dead vegetation was observed on both sides of the tank truck. Dead vegetation was also observed southwest of the anhydrous tank.

The following are some of the sample results:

Groundwater Sample Analyte	Measured Level (ug/l)	Statewide Standard (ug/l)
Nitrogen (Nitrate + Nitrite)	260,000	10,000
Ammonia	100,000	30,000
Atrazine	22	3
Cyanazine	51	1
Metolachlor	1,800	70
Alachlor	1,800	2
Trifluralin	1,700	5
Acetochlor	40,000	140

Chronological Site History:

The site has been used as an Ag Chem dealership since 1964. It has been owned and operated by Cecil Glawe for about 15 years.

1.4 Project/Task Description

Phase of Work: ☐ ISS ☐ ESS ☐ PA ☒ PA/SI ☐ PA/SI RSE

Schedule:

Iowa One Call will be call more then 48 hours in advance of the site investigation. Fieldwork will begin on September 14, 2000 and take approximately two days.

1.5 Quality Objectives and Criteria for Measurement Data

Per the Generic QAPP: ☒ Yes ☐ No (Describe below)
Other:

1.6 Special Training

Per the Generic QAPP.

1.7 Documentation and Records

Per the Generic QAPP.

2. MEASUREMENT AND DATA ACQUISITION

2.1 Sampling Process Design

Description of Sampling Design:

Sampling will consist of using the Departments Geoprobe to push a series of temporary monitoring well for groundwater samples in a grid pattern throughout the site and in the city right-of-way around the site. This will allow us to find and define a contamination plume from the Ag site if one exists.

Final location of the monitoring wells will be determined the morning of September 14, 2000 after all the utilities have been located.

Several soil borings will be done in areas that involved mixing loading of storage of agriculture chemicals.

All Geoprobe work will be done in accordance to the Geoprobe Standard Operating Procedures in the QAPP.

For more detail see the attached Work Plan and Site Safety Plan.

2.2 Sample Methods Requirements

Matrix	Sampling Method
Groundwater	Geoprobe Sampling of Groundwater With Direct Push Techniques SOP
Soil	Geoprobe Sampling of Soils With Direct Push Techniques SOP

2.3 Sample Handling and Custody Requirements

Per the Generic QAPP.

2.4 Analytical Methods Requirements

Media Sampled	Analytical Parameter	Analytical Method	Sample Container	Sample Preservation	Special Handling
Groundwater	Nitrate + Nitrite (as Nitrate Nitrogen	EPA 353.2 (Cd Red) EPA 300.0 (Fe/Chrom)	250 ml Bottle	H_2SO_4 to pH<2	Cool 4° C
Groundwater	Common Iowa Herbicides	EPA 507	1 Qt Jar	None	Cool 4° C
Groundwater	Chlorinated Hydrocarbon Insecticides	EPA 525.1	1 Qt Jar	None	Cool 4°C
Soil	Nitrate + Nitrite (as Nitrate Nitrogen	EPA 353.2 (Cd Red) EPA 300.0 (Fe/Chrom)	1 Pint Jar	None	Cool 4° C
Soil	Chlorinated Hydrocarbon Insecticides	EPA 525.1	1 Pint Jar	None	Cool 4°C
Soil	Chlorinated Hydrocarbon Insecticides	EPA 525.1	1 Pint Jar	None	Cool 4°C

2.5 Quality Control Requirements

QC Sample	Number to be Collected	Location(s)
Groundwater- Field Duplicate	1	Determined in the field.
Soil – Field Duplicate	1	Determined in the field.
Equipment Blank	1	Determined in the field.
Field Blank	1	Determined in the field.

2.6 Instrument/Equipment Testing, Inspection, and Maintenance Requirements

Per the Generic QAPP.

2.7 Inspection/Acceptance Requirements for Supplies and Consumables

Per the Generic QAPP.

2.8 Data Acquisition Requirements

Per the Generic QAPP.

2.9 Data Management

Per the Generic QAPP.

3. ASSESSMENT/OVERSIGHT

All assessment and oversight activities are in accordance with the Generic QAPP.

4. DATA VALIDATION AND USABILITY

All data validation will be in accordance with the Generic QAPP.