CON 12-15
Doc #15928

Site Investigation Report Review

SIRR Report for Unassigned Uncontrolled Sites

SIRR ID P17-0011

Site Name LAND O' LAKES, ROCKWELL

Screening Activity Extended Site Screening

City Location Rockwell

Site Type Property Audit

County Cerro Gordo

SITE INFORMATION

Property Owner Ron Pumphrey

Mailing Address Farmers Cooperative of New Hampton
1949 McCloud Street
New Hampton, Iowa 50659

Location/Legal Description 16 032 130th Street
Rockwell, Iowa
SW 1/4 of SW 1/4 of Section 15, T94N, R20W
Latitude: 42.9528
Longitude: 93.1997

Size Of Property 4.2 acres

Report Prepared By John Bale, Envirosolutions

Date Report Submitted 05/03/2002

Report Submitted By John Bale, Envirosolutions

Current Usage Ag Chem Stor. & Distrib.

REPORT INFORMATION SUMMARY

I. Summarize the data submitted (no., type, depth of soil borings, surface samples, ground water samples, other sampling conducted, analyses performed, contamination identified, etc.)

ISS INFORMATION

Twelve (12) composite soil samples were collected in ten (10) distinct areas to a depth of two (2') feet bgs on-site. Samples were analyzed for nitrate nitrogen, ammonia nitrogen, and MDA List #1 pesticides. A surface water sample was collected from the holding pond southwest of the warehouse. The water sample was analyzed for MDA List #1 pesticides.

Elevated concentrations of Alachlor were discovered in the soil samples at Areas 5 (5.5 mg/kg) and 9 (2,400 mg/kg). Also ammonia nitrogen and nitrate nitrogen was detected in the soil samples at Area 5 (570 mg/kg and 96 mg/kg, respectively) and nitrate nitrogen at Area 9 (12 mg/kg). High levels of Alachlor, Atrazine, and Metolachlor were discovered in the surface water samples taken from the holding pond.

ESS INFORMATION

Eleven soil samples from Area 5, Liquid Nitrogen load-out, were collected and analyzed for nitrate nitrogen and ammonia nitrogen. An attempt to collect a groundwater sample was unsuccessful. The maximum concentration of nitrate nitrogen was 560 mg/kg from soil boring P3 between 0.5-1.5 ft. The current statewide standard for nitrate nitrogen under Chapter 137 is 130,000

mg/kg. The maximum concentration of ammonia nitrogen from Area 5 was 2,900 mg/kg at soil boring P3 between 4-5 ft. Currently, there is no statewide standard under Chapter 137 for ammonia nitrogen.

Eleven soil samples from Area 9, Stormwater Run-off collection area, were collected and analyzed for neutral extractable pesticides (MDA List #1). Cyanazine was detected at a concentration of 0.15 mg/kg at boring P8 from 4-5 feet bgs. Acetochlor, atrazine, and metribuzin were detected at concentrations of 60 mg/kg, 0.11 kg/mg and 30 mg/kg, respectively, at boring P1 from 0.5 to 1.5 feet bgs. Metribuzin was detected at a concentration of 0.94 mg/kg at boring P10 from 4-5 feet bgs. The statewide standard for the above-mentioned contaminants are as follows: cyanazine 160 mg/kg, acetochlor 1600 mg/kg, atrazine 2700 mg/kg, and metribuzin 2000 mg/kg.

Attempts to collect a groundwater sample at Area 9 and Area 5 were unsuccessful.

A groundwater sample was collected from the on-site water supply well and analyzed for nitrate nitrogen, ammonia nitrogen, and neutral extractable pesticides (MDA List #1). The results of chemical analysis performed on the groundwater sample collected at the water supply well indicated a nitrate nitrogen concentration of 1.9 mg/l, an ammonia nitrogen concentration of 2.87 mg/l, and non-detectable concentrations of the analyzed pesticides.

Two sediment samples from the stormwater retention pond were collected and analyzed for neutral extractable pesticides (MDA List #1). The chemical analysis of the sediment samples did not indicate the presence of pesticide compounds at concentrations above the laboratory method detection limit with the exception of 0.16 mg/kg cyanazine at SS-2 (std. 160 mg/kg, according to Chapter 137).

Based on the above information, split sampling was conducted between the Department and the responsible party in efforts to render a comfort letter to the responsible party. A water sample was collected from the drinking water well and analyzed for pesticides, nitrate, and ammonia contaminants. The Department's results indicated that ammonia nitrogen exists at 2.6 mg/L. All other contaminants were below detection limits.

II. Summarize the site history (past usages, known or suspected contamination pathways such as tanks, S.W. burial, septic tank/tile field, lagoon, land application, etc.)

ISS INFORMATION
The site was developed as an agricultural chemical distribution facility in the 1960's. From approximately 1960 to 1997, dry fertilizer, liquid fertilizer, and/or pesticides were distributed from the site. There were several above-ground storage tanks on site. With the capacity of 18,000, 30,000, and 320,000 gallons, they held Anhydrous Ammonia, Anhydrous Ammonia, and 28% Nitrogen, respectively. There was a holding pond south of the warehouse building along 130th Street.

ESS INFORMATION
The site is currently inactive.

III. Summarize the other relevant information (include what may have been learned or known from sources other than the report itself, such as DNR files)

ISS INFORMATION
A Phase I was conducted in the fall of 2000. Based on the findings, the site has been used to store and/or distribute agricultural chemicals. No obvious signs of leaks or spills of hazardous substances were observed; however, it is possible that day-to-day activity could have an impact on soil and/or groundwater at the site. This is most applicable to the locations where agricultural chemicals were stored, loaded, and unloaded, and at the holding pond due to possible accumulated run-off.

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ESS INFORMATION
No wells were identified within a 2000' radius of the site. However, 11 water wells were identified within a 4-mile radius of the area: four municipal wells within the City of Rockwell, each serving approximately 989 people, two non-municipal wells located at Linn Grove Park and five private, permitted water wells. (Information obtained from ArcView).

According to the a water well search included in the Site Investigation Report, six wells were identified to exist within a 2000' radius of the site. Of the six wells, three were listed as abandoned, two are active, and one is listed as a test well. Also, there is a well on-site. The depth of the on-site well is unknown. The wells with known construction are drilled to depths of 45 to 185 feet bgs, and constructed with casings to 125 feet bgs.

The nearest surface water tributary is to the East Branch of Beaverdam Creek, located approximately 600' east and 800' south.

Iowa Department of Natural Resources conducted an on-site observation survey in November 2002. Observed were three residences to the east, west, and south of the site. The closest residence was approximately a half a mile away (the eastern residence).

REVIEW SUMMARY

Contaminant Type Ag Chemical

I. Summarize your findings and conclusions regarding the contaminants found and their extent and concentrations. Relate those values known criteria such as water quality standards, MCLs, established cleanup levels, background or any other relevant or useful benchmarks used to determine the site's priority.

ISS INFORMATION
Soil samples from Areas 1, 3, 4, 4a, 4b, 6, and 7 were analyzed for traces of nitrate nitrogen and ammonia nitrogen. Though there was evident contamination, levels did not exceed Iowa Land Recycling Program (ILRP) soil standards. Composite soil samples from Areas 2a, 2b, and 8 were analyzed for MDA List #1 pesticides and though traces of these contaminants was apparent, they did not exceed soil standards. Concentrations of Alachlor in Area 5 (5.5 mg/kg) and Area 9 (2,400 mg/kg) were detected. Area 5 soil samples detected high levels of ammonia nitrogen (570 mg/kg) and nitrate nitrogen (96 mg/kg) while only nitrate nitrogen was detected in Area 9 soil sample at 12 mg/kg. A water sample was analyzed from the holding pond on-site and the following was detected: Alachlor (4.0 ppb), Atrazine (0.68 ppb), and Metolachlor (1.0 ppb)

ESS INFORMATION
Based on the information collected, ~~high~~ levels of nitrate nitrogen, ammonia nitrogen, and pesticides exist in soil at the site. However, amounts discovered are not above Chapter 137 statewide standards.

II. Summarize the potential or actual impacts of the contamination. What is known about the neighboring area, i.e., are there residences, businesses, public use areas, etc.? Are there wells in the area that could be potentially impacted? Are there identified contaminant pathways such as water or sewer lines, drain tiles, or fissures? Identify any other use/location issues that deserve consideration in any priority assignment.

ISS INFORMATION
To the north, east, and west of the site is agricultural cropland and to the south is undeveloped lowland. There is a holding pond on-site and south of the warehouse. It was used for run-off from the site's operations.

ESS INFORMATION
An on-site survey was conducted by the Department. Currently inactive, the site is right off of Highway 65. The surroundings

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are undeveloped. The closest residence is approximately 1000' northwest of the site.

III. Summarize any other information, knowledge, or reasoning used in determining your recommendation regarding the priority assigned to this site.

ISS INFORMATION
Recommend an ESS be conducted to determine the exact extent and magnitude of soil contamination and possible groundwater contamination concerning the contaminant of Alachlor at the areas of main concern, the holding pond and areas 5 and 9. Evidence will determine whether remedial action is necessary.

ESS INFORMATION
Based on the information submitted to the Department, a split water sample was collected between the Department and responsible party from the on-site water supply well to determine whether the on-site well is being impacted by contaminants stored on the property. Lab analyses of the groundwater samples were compared. Based on this comparison, the contaminants previously detected in the water well do not seem to pose a threat to human health and the environment. Therefore, no further action is necessary at the site under CERCLA or state authority.

PRIORITY LEVEL

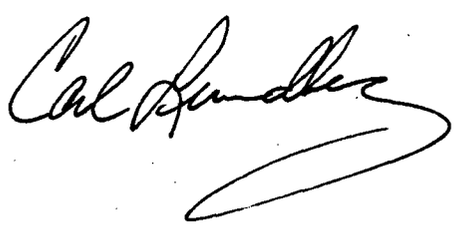
Priority Level 4

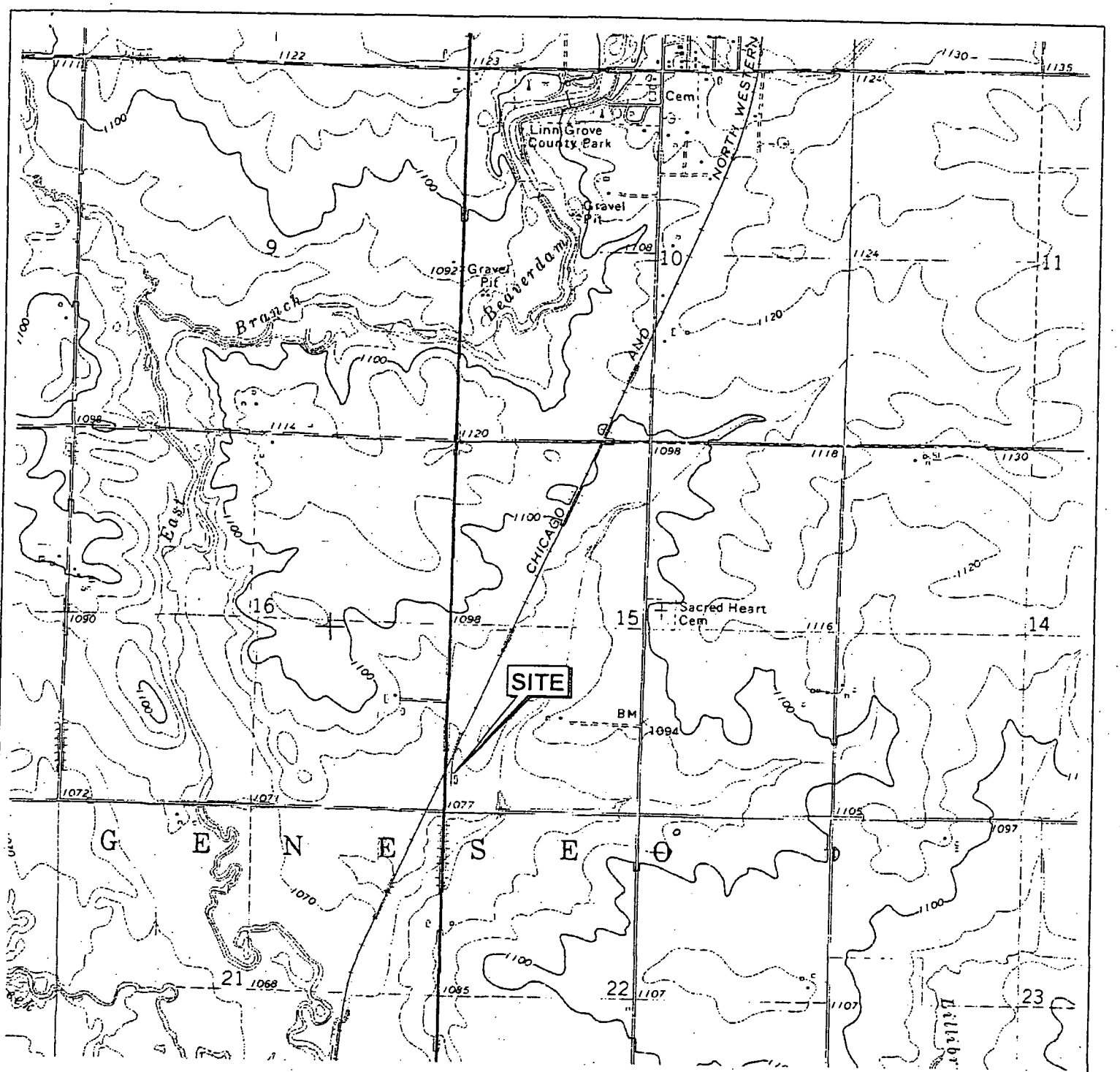
PROGRAM AUTHORITY REFERRAL

Program Authority Referral No Further Action

Other Referral

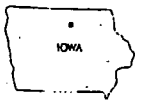
ISS/Form Completed By	Jessica R. Montana	**Date ISS Completed**	06/11/2001
ESS Completed By	Jessica R. Montana	**Date ESS Completed**	
		Date Completed	
Form Reviewed	Lambert Nnadi Calvin Lundberg	**Date Reviewed**	2/11/03





Map adapted from USGS 7.5 minute topographic map: Sheffield, IA; T 96 N, R 21 W, Section 13

LEGEND



QUADRANGLE LOCATION

N

0 2000 4000 Feet

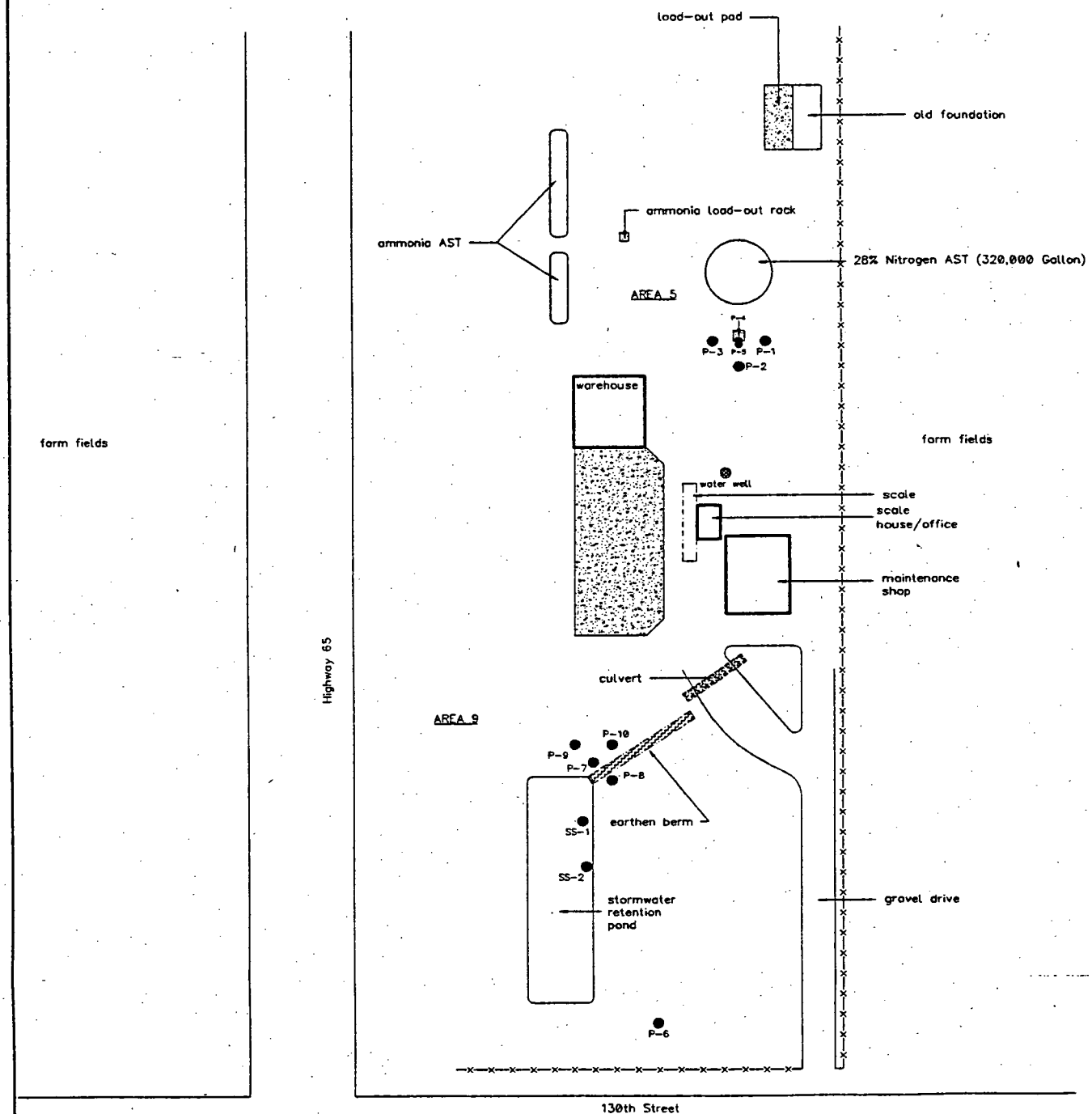
GENERAL SITE LOCATION MAP

Former Land O' Lakes, Inc.
16 032 130th Street
Rockwell, Iowa

Summit Envirosolutions

Figure 1

File: filgure_1.apr
Summit Proj. No.: 1289-024
Plot Date: 01-10-02
Arc Operator: PDD
Reviewed by: JMB



LEGEND

- test boring
- monitoring well
- building
- culvert
- stormwater retention pond
- curb
- fence
- earthen berm
- concrete pad
- tank

N

0' 60'

SCALE: 1"=60'

SITE LAYOUT AND TEST BORING LOCATION MAP
FORMER LAND O LAKES AGRONOMY CENTER
ROCKWELL, IOWA

Summit Envirosolutions®

FIGURE 2

AutoCAD File:	FIG2.DWG
Summit Proj. No:	1289-024
Plot Date:	04/29/2002
CAD Operator:	PDD
Reviewed by:	JMB

PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Jessica Montana, Environmental Specialist (Name/Title) — January 3, 2003 (Date)
900 E. Grand Avenue, Des Moines, Iowa 50319 (Address) — 515-281-8934 (Phone)
jessica.montana@dnr.state.ia.us (E-mail Address)

Site Name: Land O' Lakes, Rockwell

Previous Names (if any): n/a

Site Location: 16 032 130th Street (Street)
Rockwell (City) — Iowa (ST) — 50469 (Zip)

Latitude: 42.9528 **Longitude:** 93.1997

Compare the following checklist. If "yes" is marked, please explain below.	YES	NO
1. Does the site already appear in CERCLIS?	☐	☒
2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures?	☐	☒
3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	☐	☒
4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?	☐	☒
5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?	☐	☒
6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?	☐	☒
7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)?	☐	☒
8. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance release have occurred, EPA approved risk assessment completed)?	☐	☒

Please explain all "yes" answer(s), attach additional sheets if necessary:

Site Determination:

☐ Enter the site into CERCLIS. Further assessment is recommended (Explain below).

☒ The site is not recommended for placement into CERCLIS (Explain below).

DECISION/DISCUSSION/RATIONALE:
After further investigation of pesticide, nitrate nitrogen and ammonia nitrogen contamination, it is recommended that no further action need be done at the site under CERCLA. No further action is warranted under state authority as well.

Regional EPA Reviewer:

Print Name/Signature — Date

State Agency/Tribe:

Cal Lundblad — 2/11/03

Print Name/Signature — Date

REGION VII U.S. EPA SUPERFUND — ***PRE-CERCLIS INITIATION FORM***

NO DISCOVERY DATE — **NPL Status = O-NOT A VALID SITE OR INCIDENT**

Site Name: Land O Lakes

Address: 16 032 130th Street — County Name: Cerro Gordo

City, State, Zip: Rockwell, Iowa 50469 — State ID (if one exists): P17-0011 — Congressional District: 2

NPL Status: = ☒ Not a Valid Site or Incident — **Federal Facility?** ☐ Yes ☒ No

Section: ☐ C-(SACR) Site Assessment/Cost Recovery Branch ☒ L-(EFLR) Enfr/Fund Lead RV Branch ☐ F-(FFSE) Federal Facilities/Special Emphasis Brnach
☐ M-(MOKS) MO/KS remedial Branch ☐ I-(IANE) IA/NE Remedial Branch ☐ O-(ER&R) Emergency Response & RV Branch

List Site Alias Name (s): n/a

Directions to Site: From Des Moines take 35 North for approximately 105 miles, then take B60 east approximately 10 miles.

Site Description: Ag Chem Storage and Distribution facility

Site Size: 4.2

Site Dimension: ☒ Acres ☐ Square Feet ☐ Feet ☐ Square Miles ☐ Miles

USGS Quadrant: Sheffield — USGS Hydro Unit: 0708020401

Latitude: 42. 9528 **Longitude:** 93.1997
(Decimal Degree format)

Lat/Long Accuracy: ☐ Seconds ☐ Miles ☐ Feet ☐ Degrees ☐ Minutes ☐ Kilometers ☒ Meters

Lat/Long Source: ☐ EPA Region 7 ☐ EPIC ☐ Regulated Entity ☐ Private ☐ Geograph ☐ SNAP ☒ Other ☐ Other Fed Agency ☐ Contractor ☐ EPA HQ

Owner Operator Type (choose 1): ☐ Bank/Loan Company ☐ County Owned ☐ District Owned ☐ Federally Owned ☐ Former Federally Owned or Operated ☐ Government Owned/Contractor Operated ☐ Privately Owned/Government Operated ☐ Property Defaulted Back to Government ☐ Municipality ☐ Indian Lands ☐ Other ☒ Private ☐ Mixed Ownership ☐ State Owned ☐ Trustee, Federal ☐ Trustee, State

Operational Status: ☐ Active ☒ Inactive ☐ Unknown

Incident Type: ☒ Non-Oil Spill ☐ Oil Spill ☐ Unknown

Non-NPL Status (Choose one):
Protect: ☐ Yes ☒ No
☐ Not a Valid Site or Incident ☐ Not a Valid Site or Incident: NRC Lead
☐ Not a Valid Site or Incident: RCRA Lead ☒ Not a Valid Site or Incident: State Lead
☐ Not a Valid Site or Incident: Tribal Lead

Add Action: OU 00
☒ PRE-CERCLIS SCREENING Planned Complete: / /

Actual Complete: / /

Lead code (choose one):
☐ F-EPA Fund Fianced ☐ FF - Federal Facility ☒ S - State, Fund Financed

SCAP Note:

Add below Action (if No Further Action):
OU 00 Lead: EP
☐ PRE-CERCLIS ARCHIVE Actual Complete: 07/30/2002

Comment: ☐ Site or ☒ Action:

Signatures:
State: _____ Date: 2/14/03 RPM/OSC/SAM: _____ Date ___/___/___

Site Type (Choose all that apply - for every main category chosen in bold at least one sub-category must be selected; if more than one main and sub category is selected indicate which is primary):

Primary designation: OT

☐ **MP-Manufacturing/Processing/Maintenance** - *Applicable sub-categories:*
- ☐ CA-Chemicals and allied products
- ☐ CG-Coal gasification
- ☐ CP-Coke production

☐ EP-Electric power generation and distribution.
- ☐ EE-Electronic/electrical equipment
- ☐ FT-Fabrics/textiles
- ☐ LW-Lumber and wood products/pulp and paper
- ☐ WP-Lumber and wood products/wood preserving/treatment
- ☐ MF-Metal fabrication/finishing/coating and allied industries
- ☐ OR-Oil and gas refining
- ☐ OP-Ordnance production
- ☐ PR-Plastics and rubber products
- ☐ PM-Primary metals/mineral processing
- ☐ RA-Radioactive products
- ☐ T A-Tanneries
- ☐ TS-Trucks/ships/trains/aircraft and related components

☐ **MI-Mining** - *Applicable sub-categories*
- ☐ CO-Coal ☐ ME-Metals
- ☐ NM-Non-metal minerals ☐ OG-Oil and Gas

☐ **WM-Waste Management** - *Applicable sub-categories*
- ☐ CL-Co-disposal landfill (municipal and industrial)
- ☐ ID-Illegal disposal/open dump
- ☐ IF-Industrial waste facility (non-generator)
- ☐ IL-Industrial waste landfill
- ☐ MD-Mine tailings disposal
- ☐ ML-Municipal solid waste landfill
- ☐ RW-Radioactive waste treatment, storage, disposal (non-generator)

☒ **OT-Other** - *Applicable sub-categories*
- ☐ AG-Agricultural (e.g., grain elevator)
- ☐ CS-Contaminated sediment site with no identifiable source
- ☐ DC-Dust control
- ☐ GP-Ground water plume site with no identifiable source
- ☐ MO-Military/Other Ordinance
- ☒ PS-Product storage/distribution
- ☐ RD-Research, development, and testing facility
- ☐ RC-Retail/commercial
- ☐ SE-Spill or other one-time event
- ☐ TP-Transportation (e.g., railroad yards, airport, barge docking, site)
- ☐ TW-Treatment works/septic tanks/other sewage treatment

☐ **RE-Recycling** - *Applicable sub-categories*
- ☐ AT-Automobiles/tires
- ☐ DT-Drums/tanks ☐ WO-Waste/used oil
- ☐ BS-Batteries/scrap metals/secondary smelting/precious metal recovery
- ☐ CC-Chemicals/chemical waste (e.g., solvent recovery)

REGION VII SUPERFUND SITE PRE-CERCLIS SCREENING FORM

I. SITE NAME AND LOCATION:

NAME: Land O' Lakes, Rockwell

ADDRESS OR OTHER LOCATION IDENTIFIER: 16 032 130th Street

CITY: Rockwell	**STATE:** Iowa	**ZIP:** 50469

DIRECTIONS TO SITE: From Des Moines take 35 north for approximately 105 miles, then take B60 east approximately 10 miles.

MAP ATTACHED: Yes

II. PROGRAM CONTACTS:

REQUESTED BY: Don Hamera	**DATE OF REQUEST:** n/a

AGENCY/OFFICE: Environmental Protection Agency

MAILING ADDRESS: 901 N. 5th Street, Plaza Level

CITY: Kansas City	**STATE:** Kansas	**ZIP:** 66115
TELEPHONE: 913-551-7818	**FAX:** 515-551-5035	

EVALUATOR: Jessica Montana

AGENCY/OFFICE: Contaminated Sites Section, Iowa Department of Natural Resources

MAILING ADDRESS: 900 E. Grand Avenue

CITY: Des Moines	**STATE:** Iowa	**ZIP:** 50319
TELEPHONE: 515-281-8934	**FAX:** 515-281-8895	

III. SITE INFORMATION:

TYPE OF FACILITY: Ag Chem Storage & Distribution facility	**TYPE OF OWNERSHIP:** Private

OWNER/OPERATOR INFORMATION:

SITE STATUS (active/inactive): Inactive	**YEARS OF OPERATION:** Unknown

OPERATIONAL HISTORY: (How was the site identified?)

A Phase I investigation was conducted due to a property transfer. Based on Phase I investigation, a Phase II was recommended. Soil borings were collected during the Phase II site assessment. The soil borings indicated the need for further soil and initial groundwater samples be taken to help determine the extent and magnitude of contamination found in the Phase II. The Department and the responsible party collected split samples at the water well on-site. The samples were analyzed for pesticides, ammonia, and nitrates. Analysis did not detect contaminants above statewide standards in pesticides, ammonia, or nitrates.

REGION VII SUPERFUND SITE PRE-CERCLIS SCREENING FORM

IV. PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISIONS
(Criteria from "Improving site Assessment: Pre-CERCLIS Screening Assessments", OSWER Directive #9375.2-11FS, EPA-540-F-98-039, PB98-963310, October 1999)

1. Does the site already appear in CERCLIS? **NO**
(If YES, this Form may be inappropriate to document site decisions, i.e., a CERCLA PA (at a minimum) is required.)

2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures? **NO**
(If YES, then explain in Section V.)

3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or solely through naturally occurring processes or phenomena, from a location where it is naturally found? **NO**
(If YES, then explain in *Section V*).

4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use? **NO**
(If YES, then explain in Section V.)

5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program? **NO**
(If YES, then explain in *Section V*).

6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)? **NO**
(If YES, then explain in *Section V*).

7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)? **NO**
(If YES, then explain in *Section V*).

Check one, either 8.a or 8.b, whichever applies

8. a. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, EPA approved risk assessment completed)? **YES __ or NO ___**
(Explain in *Section V*).

8. b. Base on limited sampling that has been performed at/near the site in conjunction with Pre-CERCLIS Screening Assessment, is there a release or a potential for a release that could cause adverse environmental or human health impacts? **NO**
(Explain in *Section V*).
Yes -> Explain in the following Sections whether or not a CERCLA response action (CERCLIS entry) is warranted.
No -> No CERCLIS entry is warranted. Explain in the following Sections.

REGION VII SUPERFUND SITE PRE-CERCLIS SCREENING FORM

V. SUPERFUND SITE SCREENING CRITERIA

A. REMEDIAL CRITERIA

1. SOURCE AND WASTE CHARACTERISTICS

KNOWN OR SUSPECTED SOURCE TYPES AND LOCATIONS: The suspected source of contamination was around Area 5, the nitrogen load-out station, Area 9, the stormwater run-off collection area, and the holding pond south of the site.

SIZE OF SOURCES AND QUANTITIES (Volume, Area): Unknown. Based on the data collected, contamination seems to have occurred over the regular use of the site over a period of time.

WASTE TYPES OR HAZARDOUS SUBSTANCES KNOWN OR SUSPECTED TO BE PRESENT: Ammonia nitrogen, nitrate nitrogen, and neutral extracted pesticides (MDA List #1)

2. GROUND WATER PATHWAY:

What is the likelihood that a release to groundwater has occurred at the site? A water sample collected from the on-site water well indicated that there are trace amounts of contaminants at site; however, the contaminants detected are not above statewide standards.

If a release is not suspected proceed to A.3.

a. USE AND CHARACTERISTICS:

GENERAL STRATIGRAPHY AND HYDROLOGY: The site is underlain by glacial drift till of Quaternary age. The glacial deposits are comprised primarily of sands and gravels deposited by glacial meltwater.

PRESENCE OF KARST TERRAIN: None are known to exist within the area.

DEPTH TO SHALLOWEST AQUIFER: Unknown. Attempts were made to retrieve groundwater at 24'. Groundwater was never reached.

PRIVATE WELLS WITHIN 4 MILES (locations and population served):
According to ArcView, there are five private, permitted water wells within a 4-mile radius of the site; however, there are not any private wells within a 2000' radius of the site. Population served by these wells is unknown, but it is approximated to be 2.8 persons per household. Therefore, the estimated population served by the private, permitted wells located in the 4-mile radius is 14 people. Also, four of the five private, permitted wells are located north of the site and the fifth well is located south of the site.

According to site investigations, there are six water supply wells identified within a 2000' radius of the site, three are listed as abandoned, two are active, and one is listed as a test well. Also, there is a water supply on the property. The depth of the on-site well is unknown. The on-site well use is listed as industrial.

According to the Sheffield 7.5 Quadrangle map, there are approximately 30 farmsteads illustrated on the map. Population of these farmsteads is unknown; however it is approximated that 2.8 persons per household. Therefore, the estimated population served by wells that possibly exist at these farmsteads is 84 people.

Iowa Department of Natural Resources conducted an on-site survey November 2002. Three residences were observed to the east, west, and south. The closest residence was approximately a half mile east of the site.

MUNICIPAL WELLS WITHIN 4 MILES (locations and population served):
According to ArcView, there are four municipal wells and two non-municipal wells north and within a 4-mile radius of the site. The estimated population served by the municipal wells is 989 people at each well. There are no municipal wells within a 2000' radius of the site. (Information obtained from ArcView)

DISTANCE TO NEAREST DRINKING WATER WELL:
There is a drinking water well on-site. The closest drinking water well off-site is approximately a half mile east of the site.

REGION VII SUPERFUND SITE PRE-CERCLIS SCREENING FORM

WELLHEAD PROTECTION AREAS: Unknown

3. SURFACE WATER PATHWAY:

What is the likelihood that a release to surface water has occurred at the site? In the initial site investigation, a retention pond existed on-site. Contamination, specifically Alachlor, Atrazine, and Metolachlor, was discovered in the surface water sample taken. However, subsequent sediment samples were collected and analyzed for neutral extractable pesticides. Trace amounts of contamination was discovered in the sediment samples. Also, based upon a site observation by the Department in November 2002, no water was observed. The area resembled a roadside ditch.

The nearest surface water, other than the holding pond, is a tributary to the East Branch of Beaverdam Creek located approximately 600 feet east and 800 feet south of the site. It is unlikely that a release to the Beaverdam Creek has occurred at the site.

If a release is not suspected proceed to A.4.

a. USE AND CHARACTERISTICS:

FLOOD FREQUENCY:

DISTANCE TO NEAREST SURFACE WATER:

SURFACE WATER BODIES WITHIN 15 DOWNSTREAM MILES:

DESIGNATED AND/OR PROTECTED USES OF SURFACE WATER BODIES:

DRINKING WATER INTAKES WITHIN 15 DOWNSTREAM MILES (locations and populations served):

FISHERIES WITHIN 15 DOWNSTREAM MILES:

KNOWN OR POTENTIAL SENSITIVE ENVIRONMENTS AND WETLANDS WITHIN 15 DOWNSTREAM MILES:

REGION VII SUPERFUND SITE PRE-CERCLIS SCREENING FORM

4. SOIL EXPOSURE PATHWAY:

What is the likelihood of exposure to hazardous substances at the site? Based on discrete soil samples taken, nitrate nitrogen, ammonia nitrogen, and pesticides (MDA List #1) have been detected in the soil samples. However, levels were below the applicable statewide standards.

Also, there is not a documented release by the facility of hazardous substances. However, it is possible that contamination occurred over a period of time through general use of the site rather than a one-time release or spill.

If a release is not suspected proceed to A.5.

a. CHARACTERISTICS:

NUMBER OF PEOPLE LIVING WITHIN 200 FEET:

SCHOOLS OR DAY-CARES WITHIN 200 FEET:

POPULATIONS WITHIN 1 MILE:

NUMBER OF WORKERS AT THE FACILITY OR ADJACENT FACILITIES WHOSE CONTAMINATION IS SUSPECTED:

LOCATIONS OF KNOWN OR POTENTIAL TERRESTRIAL SENSITIVE ENVIRONMENTS:

5. AIR PATHWAY:

What is the likelihood that a release of hazardous substances are migrating from the site to the air? There has not been a documented release of hazardous substances from the site to the air.

If a release is not suspected proceed to B.

a. CHARACTERISTICS

POPULATIONS WITHIN 4 MILES:

DISTANCE TO NEAREST INDIVIDUAL:

LOCATIONS OF KNOWN OR POTENTIAL SENSITIVE ENVIRONMENTS WITHIN 0 TO 1/4 MILE AND 1/4 TO 1/2 MILE:

B. REMOVAL CRITERIA

IS THERE A RELEASE AS DEFINED BY THE NCP? **YES**

EXPLAIN: Based on samples collected and the previous use of the site, it seems that contamination occurred over a period of time and general use of the site rather than a one-time release or spill.

(A RELEASE is defined as any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment of barrels, containers, and other closed receptacles containing any hazardous substances or pollutant or contaminant), but excludes: workplace exposures; engine exhaust emissions; nuclear releases otherwise regulated; and the normal application of fertilizer. For purposes of the NCP, release also means threat of release.[40 CFR 300.410(e)])

REGION VII SUPERFUND SITE PRE-CERCLIS SCREENING FORM

B. REMOVAL CRITERIA (continued):

IS THE SOURCE A FACILITY OR VESSEL AS DEFINED BY THE NCP? **YES**

EXPLAIN: There are 18,000, 30,000, and 320,000-gallon aboveground storage tanks (AST) on-site. The two aboveground storage tanks formerly contained anhydrous ammonia and the 320,000-gallon AST contained 28%nitrogen.

*(A **FACILITY** is defined as any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or POTW), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft or any site or area, where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel. A VESSEL is defined as any description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel. [40 CFR 300.410(e)]*

DOES THE RELEASE INVOLVE A HAZARDOUS SUBSTANCE, POLLUTANT OR CONTAMINANT AS DEFINED BY THE NCP? **YES**

EXPLAIN: The contaminants investigated were ammonia nitrogen, nitrate nitrogen, and pesticides (MDA List #1)

*(A **HAZARDOUS SUBSTANCE** means any substance, element, compound, mixture, solution, hazardous waste, toxic pollutant, hazardous air pollutant, or imminently hazardous chemical substance or mixture designated pursuant to the CWA, CERCLA, SDWA, CAA or TSCA. The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas. The definition of **POLLUTANT or CONTAMINANT** includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions or physical deformations, in such organisms or their offspring. The term does not include petroleum products, natural gas, natural gas liquids, liquefied natural gas, synthetic gas or mixtures of natural and synthetic gas.).[40 CFR 300.410(e)]*

IS THE RELEASE SUBJECT TO THE LIMITATIONS ON RESPONSE? **NO**

EXPLAIN: The contaminants do not fall within the limitations of response provision as defined in NCP (40 CFR 300.400(B)).

*(The **LIMITATIONS ON RESPONSE** provisions of the NCP (40 CFR 300.400(B) states that removals shall not be undertaken in response to a release: of a naturally occurring substance in its unaltered or natural form; from products that are a part of the structure of, and result in exposure within, residential buildings or business or community structures; or into public or private drinking water supplies due to deterioration of the system through ordinary use.).[40 CFR 300.410(e)]*

DOES THE QUANTITY OR CONCENTRATION WARRANT RESPONSE? **NO**

EXPLAIN: The contaminants are not above applicable statewide standards, therefore do not warrant a response.

[40 CFR 300.410(e)]

HAS A PRP BEEN IDENTIFIED? (Include name, address and telephone number) **YES**

EXPLAIN: **Previous Operator** Land O Lakes, Inc., P.O. Box 64101, St. Paul, Minnesota, 55164-0101, 651-481-2744
Current Owner Ron Pumphrey, Farmers Cooperative of New Hampton, 1949 McCloud Street, New Hampton, Iowa 50659

[40 CFR 300.410(e)]

REGION VII SUPERFUND SITE PRE-CERCLIS SCREENING FORM

B. REMOVAL CRITERIA (continued):

IS THERE AN ACTUAL OR POTENTIAL EXPOSURE TO HAZARDOUS SUBSTANCES OR POLLUTANTS, OR CONTAMINANTS? **YES**

EXPLAIN: Although the site is currently inactive, there is a potential exposure because an 18,000, 30,000, and 320,000-gallon aboveground storage tanks exist on-site. The two aboveground storage tanks formerly contained anhydrous ammonia and the latter contained 28% nitrogen. Because there exists aboveground storage tanks on-site, there is a potential for exposure to hazardous substances

IS THERE ACTUAL OR A POTENTIAL FOR CONTAMINATION OF DRINKING WATER SUPPLIES? **YES**

EXPLAIN: There is potential exposure because a water supply well exists on-site and contamination is dependent on the future use of the site.

ARE THERE HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN DRUMS, BARRELS, OR BULK STORAGE CONTAINERS? **NO**

EXPLAIN: An aboveground storage tank and the two anhydrous ammonia tanks exist on site; however, it is documented that these bulk storage containers are currently empty.

ARE THERE HIGH LEVELS OF HAZARDOUS SUBSTANCES, POLLUTANTS, OR CONTAMINANTS IN NEAR-SURFACE SOILS? **NO**

EXPLAIN: Based on the Phase II investigation, high levels of alachlor, specifically 2400 mg/kg, were discovered in composite soil samples around Area 9. The composite samples were taken in November 2000. However, subsequent discrete soil samples were collected and analyticals indicated less than detect concentrations of alachlor in area 9, which were taken in February 2002.

("High levels" may be determined by streamlined risk assessments, health consultations, state or federal soil screening criteria, and/or Superfund program policies or directives.)

ARE THERE CONDITIONS ON SITE WHICH MAY BE SUSCEPTIBLE TO IMPACT FROM ADVERSE WEATHER CONDITIONS? **NO**

EXPLAIN: There do not seem to be conditions susceptible to impact from adverse weather conditions.

IS THERE A THREAT OF FIRE OR EXPLOSION? **NO**

EXPLAIN: There does not seem to be a threat of fire or explosion. The contaminants found at the site are not volatile.

IS THERE A POTENTIAL FOR OTHER FEDERAL OR STATE RESPONSE MECHANISMS? **YES**
IF SO, IDENTIFY THE APPROPRIATE PROGRAM:

___RCRA ___NRC ___FIFRA ___UST ___OTHER FEDERAL (_____) _X_STATE DEFERRAL

EXPLAIN: Based on the findings at the site, the site can be handled under state authority.

ARE THERE OTHER SITUATIONS OR FACTORS WHICH WARRANT FURTHER SUPERFUND RESPONSE? **NO**

EXPLAIN: There are not other situations or facts that warrant further Superfund response.

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VI. SUPERFUND SITE SCREENING FINDINGS AND RECOMMENDATIONS:

X	NO FURTHER SUPERFUND RESPONSE ACTION REQUIRED - SUPERFUND CERCLIS ENTRY **NOT** WARRANTED

(Cite the appropriate criteria from SECTION V as the basis for the above determination.)

Yes	No	Unknown	Issue	Yes	No	Unknown	Issue
		X	Ground Water Pathway Threat		X		Direct Exposure Pathway Threat
	X		Surface Water Pathway Threat		X		Air Pathway Threat
X			Release Or Threat Of Release	X			A Facility Or Vessel
X			Hazardous Substance, Pollutant, or Contaminant	X			Subject To Response Limitations
	X		Quantity Or Concentration Warrant Response		X		Exposure To Hazardous Substances Or Pollutants Or Contaminants
X			Drums, Barrels Or Bulk Containers Present		X		High Levels Of Contaminants In Surface Soils
	X		Site Susceptible To Adverse Weather Conditions		X		Threat Of Fire Or Explosion
X			Willing/Capable PRP Response	X			Referred To Another Program

COMMENT:
The Groundwater Pathway Threat is unknown because only one groundwater sample was collected from the on-site water well, which is located in the center of the property, though numerous attempts to collected groundwater samples from other locations were unsuccessful.

	REMOVAL ACTION RECOMMENDED:__ EMERGENCY ___TIME-CRITICAL __NON-TIME-CRITICAL

(Cite one or more of the conditions or factors from Section V. REMOVAL CRITERIA, as a basis for recommending that a removal action be conducted.)

Yes	No	Unknown	Issue	Yes	No	Unknown	Issue
			Exposure To Hazardous Substances Or Pollutants Or Contaminants				Actual Or A Potential For Contamination Of Drinking Water Supplies
			Drums, Barrels Or Bulk Containers Present				High Levels of Contaminants Near-Surface Soils
			Site Susceptible To Adverse Weather Conditions				Fire/Explosion Threat
			Other Response Mechanism				Other Factors

REGION VII SUPERFUND SITE PRE-CERCLIS SCREENING FORM

COMMENT:

VI. SUPERFUND SITE SCREENING RECOMMENDATIONS (continued):

	ADDITIONAL INTEGRATED ASSESSMENT RECOMMENDED

(Cite the appropriate criteria from Section Vas a basis for recommending that additional site evaluation be performed.)

Yes	No	Unknown	Issue	Yes	No	Unknown	Issue
			Ground Water Pathway Threat				Direct Exposure Pathway Threat
			Surface Water Pathway Threat				Air Pathway Threat
			Release Or Threat Of Release				A Facility Or Vessel
			Hazardous Substance, Pollutant, or Contaminant				Subject To Response Limitations
			Quantity Or Concentration Warrant Response				Exposure To Hazardous Substances Or Pollutants Or Contaminants
			Drums, Barrels Or Bulk Containers Present				High Levels Of Contaminants In Surface Soils
			Site Susceptible To Adverse Weather Conditions				Threat Of Fire Or Explosion
			Willing/Capable PRP Response				Referred To Another Program

COMMENT:

VII. ADDITIONAL INFORMATION OR COMMENTS

EPA USE ONLY

REGION VII SUPERFUND SITE PRE-CERCLIS SCREENING FORM

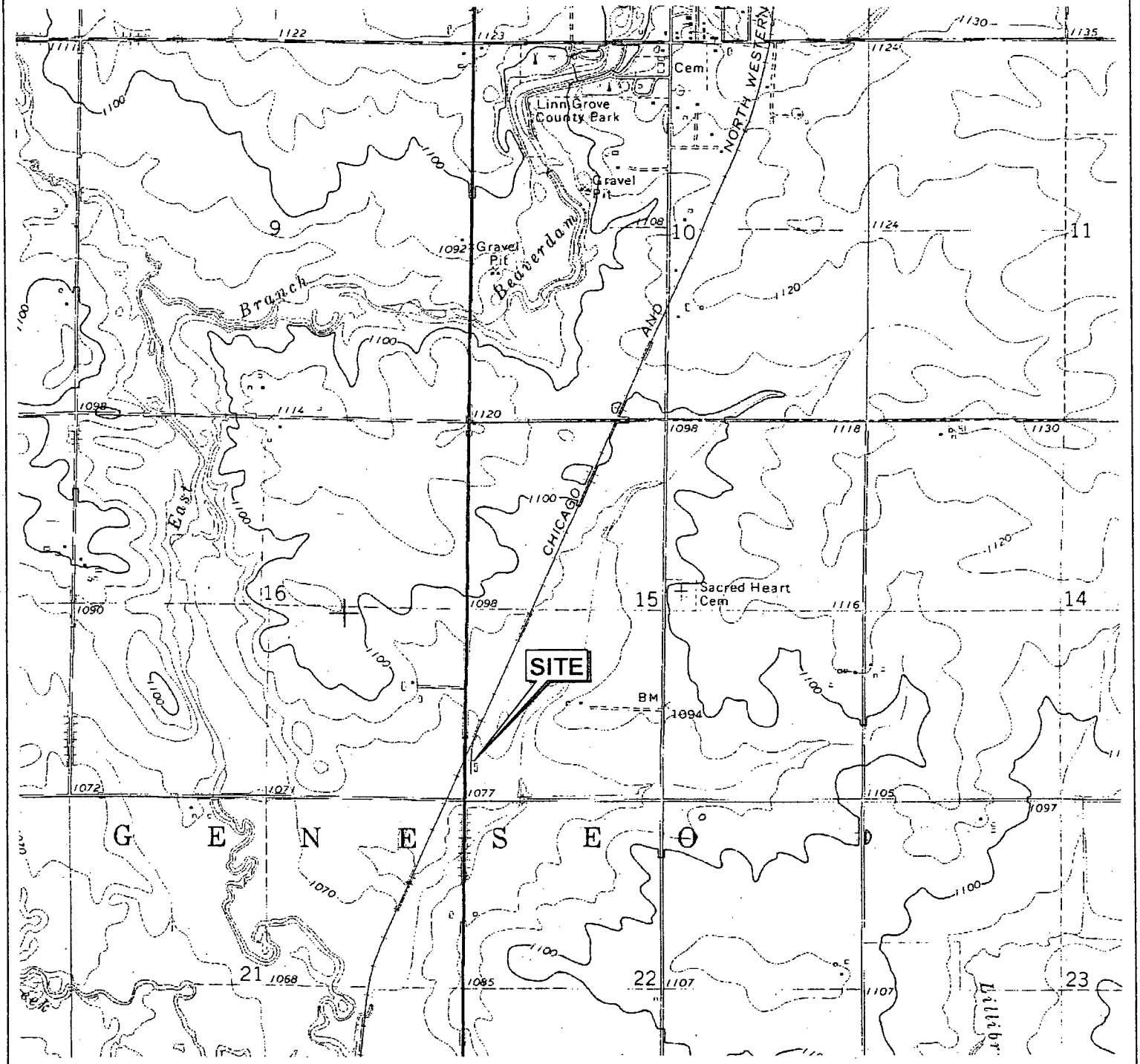
VIII. DETERMINATION

SIGNATURE: Cal [illegible], Supervisor — **DATE:** 2/11/03

Name/Title/Office

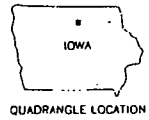
IDNR Contaminated Sites Section

(revised 07/16/02)



Map adapted from USGS 7.5 minute topographic map: Sheffield, IA; T 96 N, R 21 W, Section 13

LEGEND



QUADRANGLE LOCATION

N

0 2000 4000 Feet

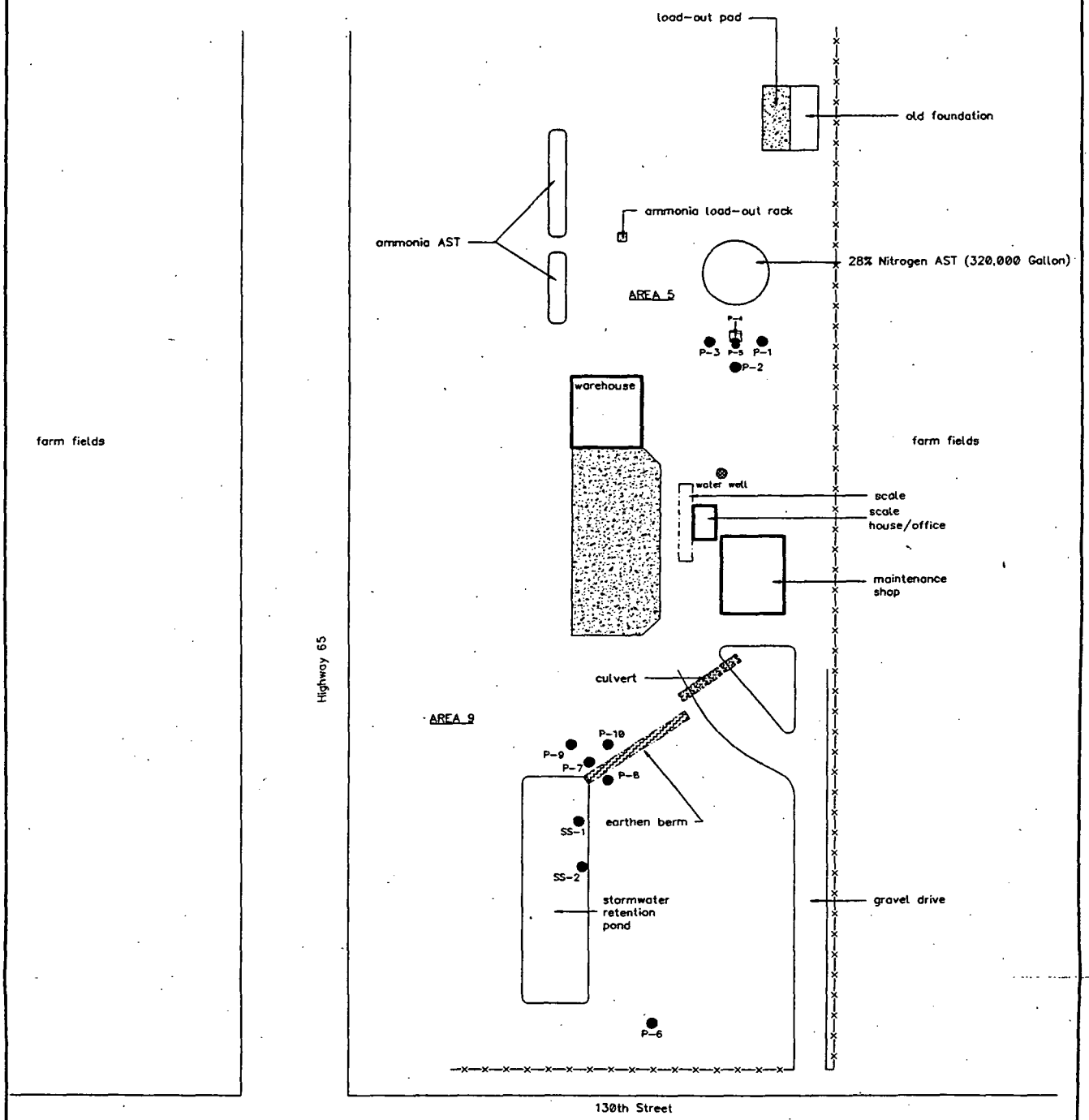
GENERAL SITE LOCATION MAP

Former Land O' Lakes, Inc.
16 032 130th Street
Rockwell, Iowa

Summit Envirosolutions

Figure 1

File: filgure_1.apr
Summit Proj. No.: 1289-024
Plot Date: 01-10-02
Arc Operator: PDD
Reviewed by: JMB



LEGEND

- test boring
- monitoring well
- building
- culvert
- stormwater retention pond
- curb
- fence
- earthen berm
- concrete pad
- tank

N

0' 60'

SCALE: 1"=60'

SITE LAYOUT AND TEST BORING LOCATION MAP
FORMER LAND O LAKES AGRONOMY CENTER
ROCKWELL, IOWA

Summit Envirosolutions

FIGURE 2

AutoCAD File:	FIG2.DWG
Summit Proj. No:	1289-024
Plot Date:	04/29/2002
CAD Operator:	PDD
Reviewed by:	JMB