

# **Manure Management Plan Update**

**Edler Brothers  
Nuese Site  
1812 W Main St. Rd.  
State Center, IA 50247**

**Facility ID # 64799**

**Prepared By  
David Halvorsen  
405 West Merle Hibbs Blvd  
Marshalltown, IA 50158  
641-751-6638**

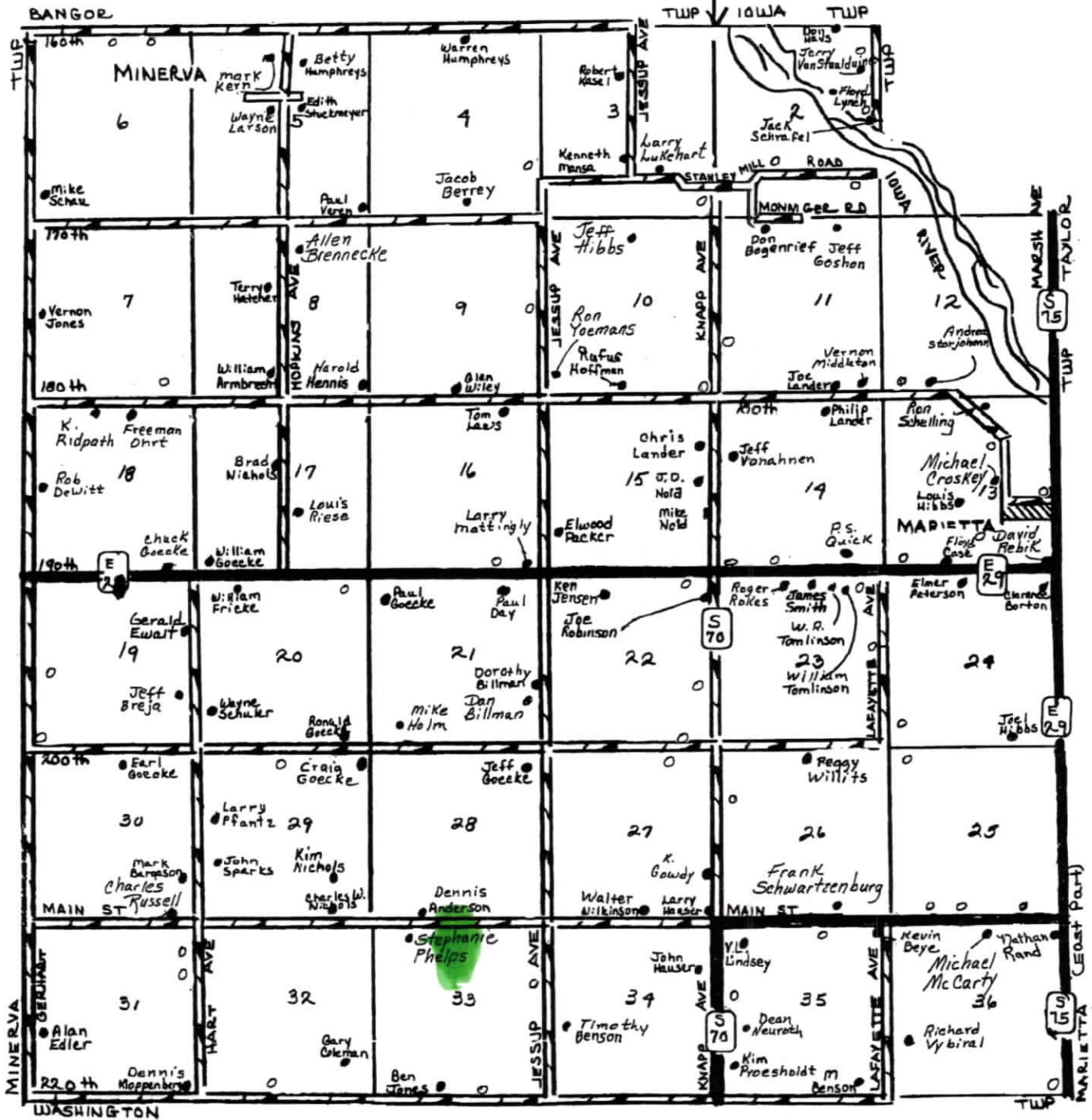
*Step 1*

# Site Location

page 12

## MARIETTA

(West Part)  
T84N - R19W

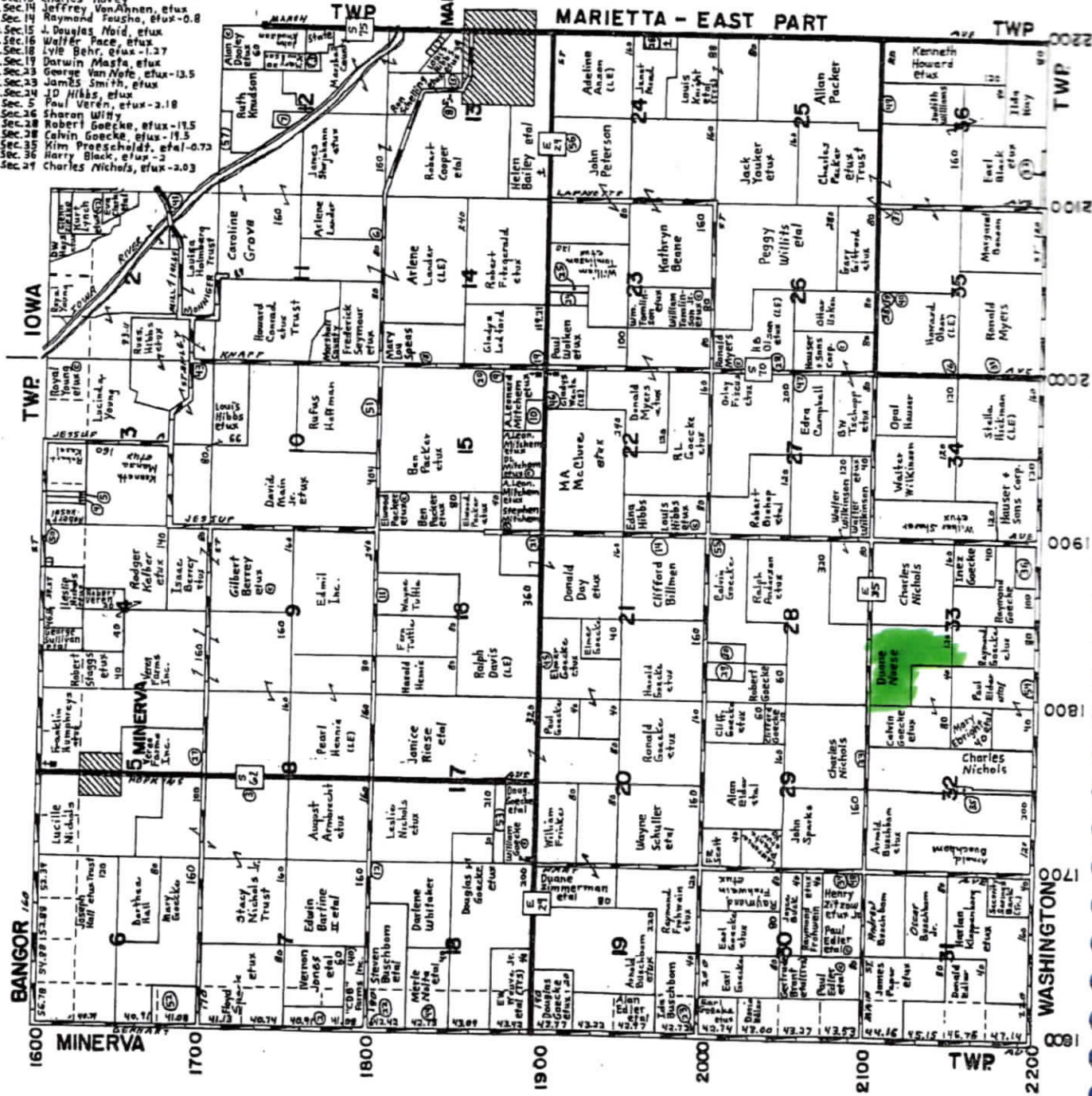


**WEST PART**

T 84N - R19W OF 5TH P.M.

34. Sec. 30 Mark Burgston, efux  
35. Sec. 32 Gert Coleman, efux-5.9  
36. Sec. 33 Raymond George, efux-18.4  
37. Sec. 35 Kevin Byge, efux  
38. Sec. 36 Henry Reyerson-5.2  
39. Sec. 35 Vicky Lindsey-6.73  
40. Sec. 35 Za-Finance Auth.-4.53/TM Foley, us  
41. Sec. 2 How. Howell, efux/How. Howell Jr, us  
42. Sec. 2 Floyd Lynch, efux  
43. Sec. 3 Larry Lukehart, efux  
44. Sec. 18 Merle Nalla-1.8  
45. Sec. 21 Paul Goocke-3.2  
46. Sec. 32 Rich. Luse, efux  
47. Sec. 21 James Adkins, us  
48. Sec. 30 Greg Walkup, efux

- 49.Sec.36 waldo Junker, etux  
50.Sec.3 Robert Kasel-L35/JE Rabbin, etal @  
51.Sec.10 Bruce Erdand, Etux-1  
52.Sec.6 Mary Goেকে-45.93/Michael Schau, ux @  
53.Sec.17 Doug, Goেকে, etal-20/Audrey Goেকে @  
54.Sec.33 Paul Edler, etal-1.88/M. Cleveland @  
55.Sec.38 Calvin Goেকে/Jeffrey Goেকে @  
56.Sec.24 Elmer Peterson  
57.Sec.12 Mae Blanchard Trust-18



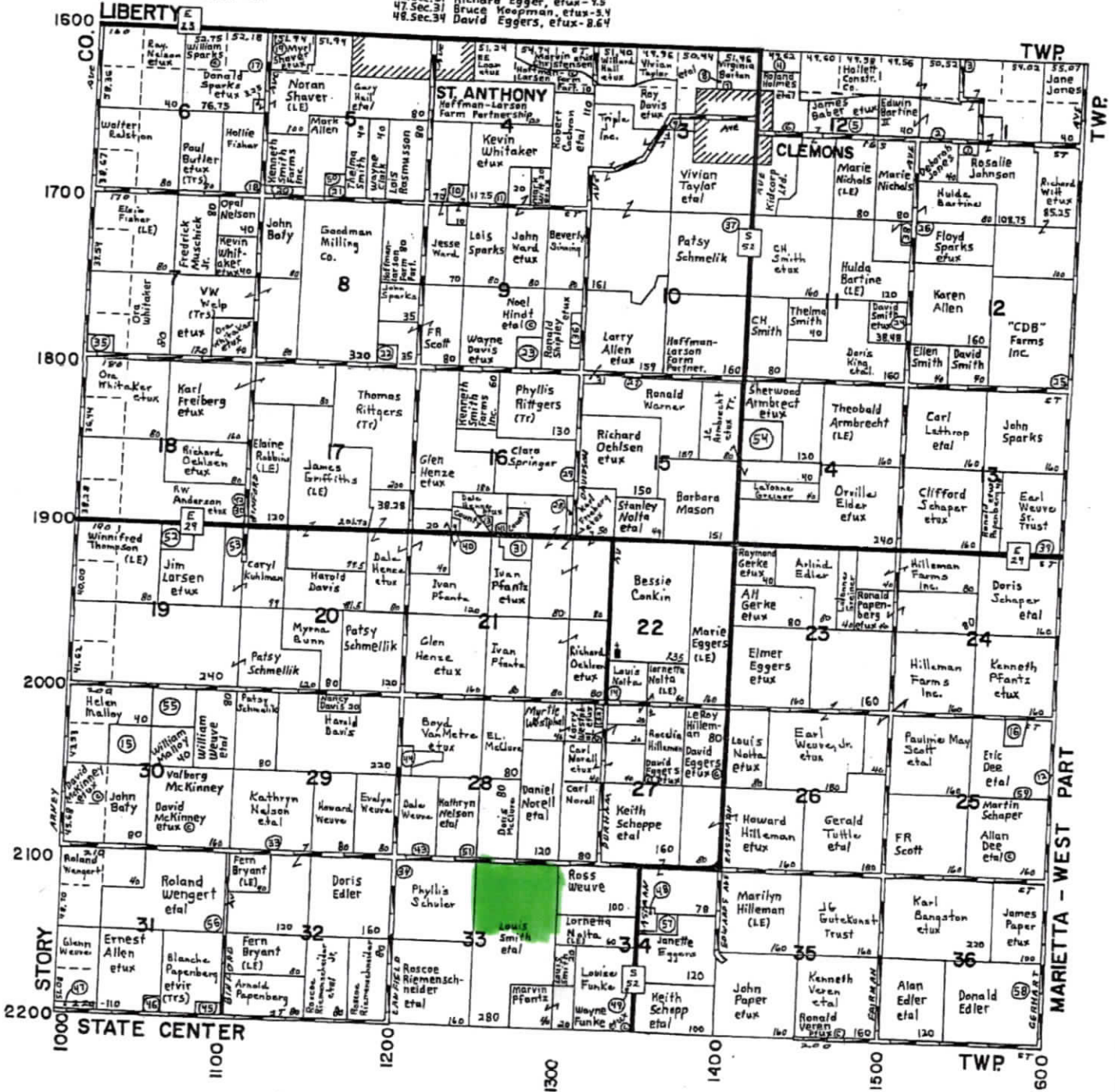
# MINERVA

T 84N-R 20W OF 5TH P.M.

- 1. Sec. 1 Esther Dutton - 6
- 2. Sec. 1 J.H. Mulder, etux/wm. Woods Jr. etux
- 3. Sec. 1 Bromley Pond Inc. - 12.58
- 4. Sec. 2 Aronelle Eley - 25
- 5. Sec. 2 Larry Heck, etux - 17.66
- 6. Sec. 2 Town of Clemons - 6.43
- 7. Sec. 2 Dennis Bryant, etux - 5
- 8. Sec. 3 Clemons Com. Park Assn. - 1.87
- 9. Sec. 3 John Davis, etux - 11.72
- 10. Sec. 4 John Davis, etux - 10
- 11. Sec. 4 Michael Fisher, etux - 2.5
- 12. Sec. 25 Dee Bros. Co. - 1.44
- 13. Sec. 16 William Reimenschneider, etal - 2.97
- 14. Sec. 23 Stanley Nolte, etux - 1.16
- 15. Sec. 30 Helen Malloy - 40/Ew Weuve Jr. etux
- 16. Sec. 25 Dee Bros. Co. - 17.2

- 17. Sec. 6 William Sparks - 1
- 18. Sec. 6 Kevin Kassel, etux
- 19. Sec. 5 Marcia Schradle - 1.92
- 20. Sec. 5 Douglas Arnold, etux - 8.78
- 21. Sec. 5 Joseph Bussan, etux - 3.38
- 22. Sec. 8 Gary Lyton, etux - 10.9
- 23. Sec. 9 Paul Welch Jr. etux - 19.43
- 24. Sec. 11 Kenneth Stewart, etux - 1.52
- 25. Sec. 12 Donald Clubb, etux
- 26. Sec. 12 Paul Jones, etux
- 27. Sec. 15 Larry Friche, etux
- 28. Sec. 16 Richard Castelli, etux
- 29. Sec. 16 Garry Wilmer, etux
- 30. Sec. 18 Michael Finnegan, etal/M. Bidwell
- 31. Sec. 21 John Maddick, etux - 16.71
- 32. Sec. 27 Larry Westphal, etux - 8.93
- 33. Sec. 29 Marvin Flachscha, etux
- 34. Sec. 33 Clair Schepke, etal - 5.38
- 35. Sec. 7 Rich. Thill, etux - 11.01/K. Renken, ux
- 36. Sec. 9 Ronald Shipley - 9.06
- 37. Sec. 10 City of Clemons - 2.3
- 38. Sec. 11 Richard Jones, etux - 2.43
- 39. Sec. 13 Francis Matheis, etux
- 40. Sec. 16 Ivan Pfantz, etux - 1.17
- 41. Sec. 16 Brian Pfantz - 1.02
- 42. Sec. 18 Michael Bidwell - 0.4
- 43. Sec. 33 Marion Weuve, etal
- 44. Sec. 28 Eric Edler - 17.08
- 45. Sec. 31 Dwayne Papenberg - 11.44
- 46. Sec. 31 Richard Egger, etux - 9.5
- 47. Sec. 31 Bruce Koopman, etux - 3.4
- 48. Sec. 34 David Eggers, etux - 8.64

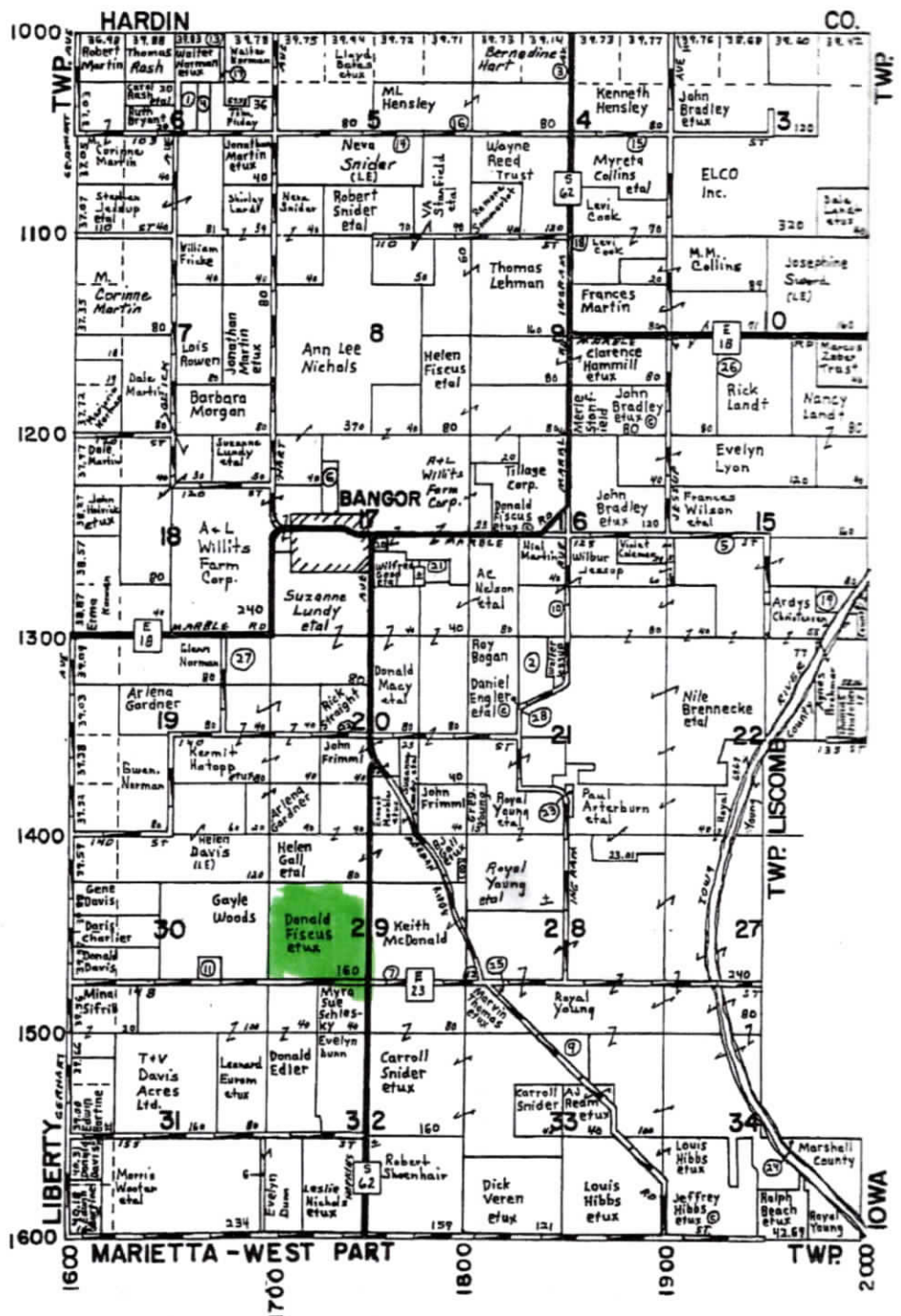
- 49. Sec. 34 Wayne Funke, etux - 1.78
- 50. Sec. 5 Joseph Bussan - 6.63
- 51. Sec. 28 Philip Affeldt, etux
- 52. Sec. 19 Jeffrey Larsen, etux
- 53. Sec. 19 Caryl Kuhlman - 1/Rod. Biersen, ux
- 54. Sec. 14 Elsie Armbricht - 40/S. Armbricht, ux
- 55. Sec. 30 Wm. Malloy - 40/Ew Weuve Jr. etux
- 56. Sec. 31 Roland Wengert - 1
- 57. Sec. 34 Janette Eggers/Dav. Eggers, etux
- 58. Sec. 36 Alan Edler, etal
- 59. Sec. 25 Dee Bros. Co. - 2.57



# BANGOR

T 85N - R 19W OF 5TH P.M.

1 Sec. 6 Thomas Rash-18.74  
 2 Sec. 21 Roy Bogan-33.27/Ron. Matzinger, et ux  
 3 Sec. 4 Donald Catherwood, et ux  
 4 Sec. 6 Robert Martin-8.71  
 5 Sec. 15 Clarence Moore, et ux  
 6 Sec. 17 Suzanne Lundy, et al-11.39/Don. Macy  
 7 Sec. 29 Louis Yohn, et ux  
 8 Sec. 29 Royal Young-2  
 9 Sec. 33 Michael Westphal, et ux-18.47  
 10 Sec. 16 Wilbur Jessup / SR Marble  
 11 Sec. 30 Robert Brukelman, et ux  
 12 Sec. 38 James Bartlett, et ux  
 13 Sec. 6 Ruth Bryant-10  
 14 Sec. 5 Robert Snider, et ux  
 15 Sec. 4 Kim Collins, et ux-2.42  
 16 Sec. 5 David Norman, et ux-3.65  
 17 Sec. 6 Larry Norman-0.38  
 18 Sec. 7 Paul DeLewyer-1.5/Allen Kinney Jr. @  
 19 Sec. 15 Robert Christensen-16  
 20 Sec. 17 Friends Monthly Meeting House-4.9  
 21 Sec. 17 Wanda Wilson, et al-10  
 22 Sec. 20 Rick Straight-5.76  
 23 Sec. 21 Paul Arterburn  
 24 Sec. 34 Donald Mackaman, et al-5.15  
 25 Sec. 28 Marshall County-0.32  
 26 Sec. 10 Tom Switzer-13.86  
 27 Sec. 19 Mary McDonald-37.38/McDonald, et al  
 28 Sec. 21 Roy Bogan-2.54



**MINNESOTA VALLEY TESTING LABORATORIES, INC.**

1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890  
2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724  
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885  
www.MVTL.com

Member  
**ACIL**

**Workorder:** Edler Brothers (99597)**Client:** Halvorsen Manure Logic**Analytical Results**

**Lab ID:** 99597008 **Date Collected:** **Matrix:** Manure  
**Sample ID:** 1 **Date Received:** 09/10/2025 13:24  
**Producer:** Edler Brothers **Animal Species:** Swine  
**Site Name:** Nuece

| Parameter      | Analysis As Received | Units | Total Nutrients (Lbs/1000Gal) | Total Nutrients (Lbs/Ton) |
|----------------|----------------------|-------|-------------------------------|---------------------------|
| Total Moisture | 95.07                | %     |                               |                           |
| Nitrogen       | 0.60                 | %     | 50.1                          | 12                        |
| P2O5           | 0.32                 | %     | 26.7                          | 6.4                       |
| K2O            | 0.45                 | %     | 37.6                          | 9                         |
| Sulfur         | 630.20               | mg/kg | 5.3                           | 1.3                       |
| Zinc           | 77.51                | mg/kg | .6                            | .2                        |

Developing a nutrient management plan requires additional information not available in this report. You may want to work with a crop consultant to determine the best manure application rates based on the manure analysis report, soil test results, estimates for nutrient availability, and the planned crop.

50.1  
47.6  
53.4  
15.1

26.7  
26.7  
24.2  
77.6

50.36  
25.86

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

**Report Date:** Monday, September 15, 2025 9:37:55 AM

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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 515-382-5486 ~ Fax 515-382-3885  
www.MVTL.com

**Workorder:** Edler Brothers (99597)**Client:** Halvorsen Manure Logic**Analytical Results**

|                   |                |                        |                  |                |        |
|-------------------|----------------|------------------------|------------------|----------------|--------|
| <b>Lab ID:</b>    | 99597009       | <b>Date Collected:</b> |                  | <b>Matrix:</b> | Manure |
| <b>Sample ID:</b> | 2              | <b>Date Received:</b>  | 09/10/2025 13:24 |                |        |
| <b>Producer:</b>  | Edler Brothers | <b>Animal Species:</b> | Swine            |                |        |
| <b>Site Name:</b> | Nuece          |                        |                  |                |        |

| Parameter      | Analysis As Received | Units | Total Nutrients (Lbs/1000Gal) | Total Nutrients (Lbs/Ton) |
|----------------|----------------------|-------|-------------------------------|---------------------------|
| Total Moisture | 95.05                | %     |                               |                           |
| Nitrogen       | 0.57                 | %     | 47.6                          | 11.4                      |
| P2O5           | 0.32                 | %     | 26.7                          | 6.4                       |
| K2O            | 0.43                 | %     | 35.9                          | 8.6                       |
| Sulfur         | 647.09               | mg/kg | 5.4                           | 1.3                       |
| Zinc           | 70.54                | mg/kg | .6                            | .1                        |

Developing a nutrient management plan requires additional information not available in this report. You may want to work with a crop consultant to determine the best manure application rates based on the manure analysis report, soil test results, estimates for nutrient availability, and the planned crop.

MVTL guarantees the accuracy of the analysis done on the sample submitted for testing. It is not possible for MVTL to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by MVTL. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

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**Workorder:** Edler Brothers (99597)**Client:** Halvorsen Manure Logic**Analytical Results**

**Lab ID:** 99597010      **Date Collected:**      **Matrix:** Manure  
**Sample ID:** 3      **Date Received:** 09/10/2025 13:24  
  
**Producer:** Edler Brothers      **Animal Species:** Swine  
**Site Name:** Nuece

| Parameter      | Analysis As Received | Units | Total Nutrients (Lbs/1000Gal) | Total Nutrients (Lbs/Ton) |
|----------------|----------------------|-------|-------------------------------|---------------------------|
| Total Moisture | 95.01                | %     |                               |                           |
| Nitrogen       | 0.64                 | %     | 53.4                          | 12.8                      |
| P2O5           | 0.29                 | %     | 24.2                          | 5.8                       |
| K2O            | 0.45                 | %     | 37.6                          | 9                         |
| Sulfur         | 662.67               | mg/kg | 5.5                           | 1.3                       |
| Zinc           | 99.22                | mg/kg | .8                            | .2                        |

Developing a nutrient management plan requires additional information not available in this report. You may want to work with a crop consultant to determine the best manure application rates based on the manure analysis report, soil test results, estimates for nutrient availability, and the planned crop.

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**Report Date:** Monday, September 15, 2025 9:37:55 AM



# Manure Management Plan Form

## Animal Feeding Operation Information

Page 1

**Instructions:** Complete this form for your animal feeding operation. Footnotes are provided on page 4.

The information within this form, and the attachments, describes my animal feeding operation, my manure storage and handling system, and my planned manure management system. I (we) will manage the manure, and the nutrients it contains, as described within this manure management plan (MMP) and any revisions of the plan, individual field information, and field summary sheet, and in accordance with current rules and regulations. Deviations permitted by Iowa law will be documented and maintained in my records.

Signed:

(Signature)

Al Edler

(Print name)

Date:

8/8/26

Name of operation: **Edler Brother Nuese Site SEC 33**Facility ID No. **64799**Location of the operation: **1812 W Main St. Rd.**

(911 address)

State Center

(Town)

Iowa

(State)

50247

(Zip)

NW  
(1/4 1/4)1/4 of the NW  
(1/4)

1/4 of Sec

33  
(Section)T 84  
(Tier & Range)

R 19

Marietta  
(Township Name)Marshall  
(County)**Owner and contacts of the animal feeding operation:**Owner **Alan Edler & Paul Edler**Phone **641-483-2454**Address **2146 Gerhart Ave. State Center, Ia 50247**

E-mail address (optional)

Cell phone (optional) **641-751-5184**

Contact person (if different than owner)

David Halvorsen

Phone **641-751-6638**Address **405 W Merle Hibbs Blvd Marshalltown, Ia 50158**

E-mail address (optional)

[dph@marshallnet.com](mailto:dph@marshallnet.com)

Cell phone (optional)

Contract company (if applicable)

Phone

Address

**This manure management plan is for: (check one)**☒ existing operation, not expanding☐ existing operation, expanding☐ existing operation, new owner☐ new operation**Construction and Expansion Dates:**

Fall 2006

date of initial construction  
and all expansions**Table 1. Information about livestock production and manure management system**

| 1                                             | 2                               | 3                                     | 4              | 5                                          | 6                         | 7                               | 8                                      |
|-----------------------------------------------|---------------------------------|---------------------------------------|----------------|--------------------------------------------|---------------------------|---------------------------------|----------------------------------------|
| Animal type/<br>Production phase <sup>a</sup> | Max # of<br>animals<br>confined | Manure Storage Structure <sup>b</sup> | N <sup>c</sup> | P <sub>2</sub> O <sub>5</sub> <sup>c</sup> | gal/space/dy <sup>d</sup> | Days/yr<br>Facility<br>occupied | Annual Manure<br>Produced <sup>e</sup> |
| Wean/ finish (dry feed) ▾                     | 3600                            | Deep Pit                              | 50             | 28                                         | 0.7000                    | 340                             | 856,800                                |
| Wean/ finish (wet/ dry) ▾                     |                                 |                                       | 56             | 38                                         | 0.7                       |                                 | 000                                    |
| Wean/ finish (dry feed) ▾                     |                                 |                                       | 49             | 40                                         | 0.9                       |                                 | 000                                    |
|                                               |                                 |                                       |                |                                            |                           |                                 |                                        |
|                                               |                                 |                                       |                |                                            |                           |                                 |                                        |
| Total Gallons                                 |                                 |                                       |                |                                            |                           |                                 | 856,800                                |

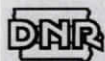
Estimated annual animal production<sup>1</sup>: **6,600** animals/year

Source of Manure Nutrient Content Data (standard tables, manure analysis, other):

Manure analysis MVTL Nevada, Ia

updated 8/04 to include phosphorus index; solid manure worksheets added 4/05

542-4000bc



# Manure Management Plan Form

## Determining Maximum Allowable Manure Application Rates

Page 2

**Instructions:** Complete a worksheet for each unique combination of the following factors (crop rotation, optimum crop yield, manure nutrient concentration, remaining crop N need, method of application) that occurs at this operation. Complete form by filling in blanks, yellow-colored cells, and drop down menus. Gray shaded cells will calculate automatically. Footnotes are given on pages 4, 5 and 6.

### Management Identification (Mgt ID)<sup>f</sup>

### MANAGEMENT B CORN CORN

(identify this application scenario by letter)

Method to determine optimum crop yield<sup>g</sup> USDA Iowa Ag Statistics County yields ▼ Timing of application FALL/ SPRING

Method of application Knifed in or soil injection of liquid manure ▼ Application loss factor 0.98

If spray irrigation is used, identify method <sup>i</sup> \_\_\_\_\_

Table 2. Manure nutrient concentration

| Manure Nutrient Content (lbs/1000gal or lbs/ton) <sup>j</sup> |      |                               |       |                       |     |
|---------------------------------------------------------------|------|-------------------------------|-------|-----------------------|-----|
| Total N                                                       | 50.4 | P <sub>2</sub> O <sub>5</sub> | 25.86 |                       |     |
| %TN Available 1st year <sup>k</sup>                           | 90%  | 2nd year                      |       | 3rd year              |     |
| Available N 1st year <sup>l</sup>                             | 44.4 | 2nd year <sup>m</sup>         | 0.0   | 3rd year <sup>n</sup> | 0.0 |

Table 3. Crop usage rates<sup>o</sup>

| lb/bu or lb/ton           | N   | P <sub>2</sub> O <sub>5</sub> |
|---------------------------|-----|-------------------------------|
| Corn                      | 1.2 | 0.32                          |
| Soybean                   | 3.8 | 0.72                          |
| Alfalfa                   | 50  | 13                            |
| Other crop <span>▼</span> | 0   | 0                             |

\*Use blank space above to add crop not listed.

Table 4. Calculations for rate based on nitrogen (always required)

| 1  | Applying Manure For (crop to be grown) <sup>p</sup>                     |                | Corn <span>▼</span> | Corn <span>▼</span> | Corn <span>▼</span> | Corn <span>▼</span> |
|----|-------------------------------------------------------------------------|----------------|---------------------|---------------------|---------------------|---------------------|
| 2  | Optimum Crop Yield <sup>g</sup>                                         | bu or ton/acre | 236                 | 236                 | 236                 | 236                 |
| 3  | P <sub>2</sub> O <sub>5</sub> removed with crop by harvest <sup>q</sup> | lb/acre        | 75.5                | 75.5                | 75.5                | 75.5                |
| 4  | Crop N utilization <sup>r</sup>                                         | lb/acre        | 283                 | 283                 | 283                 | 283                 |
| 5a | Legume N credit <sup>s</sup>                                            | lb/acre        |                     | 0                   | 0                   | 0                   |
| 5b | Commercial N planned <sup>t</sup>                                       | lb/acre        | 30                  | 30                  | 30                  | 30                  |
| 5c | Manure N carryover credit <sup>u</sup>                                  | lb/acre        |                     | 0.0                 | 0.0                 | 0.0                 |
| 6  | Remaining crop N need <sup>v</sup>                                      | lb/acre        | 253                 | 253                 | 253                 | 253                 |
| 7  | Manure rate to supply remaining N <sup>w</sup>                          | gal/acre       | 5700                | 5700                | 5700                | 5700                |
| 8  | P <sub>2</sub> O <sub>5</sub> applied with N-based rate <sup>x</sup>    | lb/acre        | 147                 | 147                 | 147                 | 147                 |

Table 5. Calculations for rate based on phosphorus (fill out only if P-based rates are planned)

|    |                                                               |          |      |      |      |      |
|----|---------------------------------------------------------------|----------|------|------|------|------|
| 9  | Commercial P <sub>2</sub> O <sub>5</sub> planned <sup>y</sup> | lb/acre  |      |      |      |      |
| 10 | Manure rate to supply P removal <sup>z</sup>                  | gal/acre | 2920 | 2920 | 2920 | 2920 |
| 11 | Manure rate for P based plan <sup>aa</sup>                    | gal/acre | 4470 | 4470 | 4470 | 4470 |
| 12 | Manure N applied with P-based plan <sup>bb</sup>              | lb/acre  | 199  | 199  | 199  | 199  |

Table 6. Application rates that will be carried over to page 3

|    |                                               |          |      |      |      |      |
|----|-----------------------------------------------|----------|------|------|------|------|
| 13 | Planned manure application rate <sup>cc</sup> | gal/acre | 5700 | 5700 | 5700 | 5700 |
|----|-----------------------------------------------|----------|------|------|------|------|

When applicable, manure application rates must be based on the P index value as follows:

(0-2) N-based manure management.

(>2-5) N-based manure management but P application rate cannot exceed two times the P removal rate of the crop schedule.

(>5-15) No manure application until practices are adopted to reduce P index to 5 or below.

(>15) No manure application.

# Manure Management Plan Form

## Year by Year Manure Management Plan Summary

**Instructions:** Complete this form for each of the next four growing seasons, to demonstrate sufficient land base to apply manure over multiple crop years. If this page is identical for multiple years (e.g. every other year), submit only once for the identical years, and indicate which years the form represents. Footnotes are given on page 6.

Crop year(s): 2026 2027 2028 2029

[illegible]



V. 4/2024

Credits: Iowa State University  
USDA National Soil Tilth Laboratory  
USDA Natural Resource Conservation Service

## Iowa Phosphorus Index

## Detailed Report

| Field Name -- Run # | Erosion        |                  |                  |              |                |                |                  |                  |          |          | Runoff        |        |             |              |               |                                       |               |              |      |                 | Tile / Subsurface Recharge |         | Overall |
|---------------------|----------------|------------------|------------------|--------------|----------------|----------------|------------------|------------------|----------|----------|---------------|--------|-------------|--------------|---------------|---------------------------------------|---------------|--------------|------|-----------------|----------------------------|---------|---------|
|                     | S&R<br>tn/ac/y | Ephem<br>tn/ac/y | Gully<br>tn/ac/y | Sed.<br>Trap | Land<br>form # | Dist<br>Stream | Filter<br>Factor | Enrich<br>Factor | P<br>Tst | P<br>ppm | Erosion<br>PI | County | Land<br>Use | Soil<br>Type | RCN<br>Factor | Rate<br>P <sub>2</sub> O <sub>5</sub> | P App<br>Mthd | Runoff<br>PI | Tile | Drain<br>Factor | Tile/Sub                   | OVERALL |         |
|                     |                |                  |                  |              |                |                |                  |                  |          |          |               |        |             |              |               |                                       |               |              |      |                 |                            |         |         |
| MCDONALD --         | 0.67           | 0.00             | 0.00             | 1.00         | 3              | 938.0          | 1.0              | 1.1              | 4        | 35       | 0.15          | 19127  | 8           | 120D2        | 2.05          | 60                                    | 2             | 0.36         | Yes  | 1.0             | 0.08                       | 0.59    |         |
| GOECKE NUECE --     | 0.95           | 0.00             | 0.00             | 1.00         | 3              | 1276.0         | 1.0              | 1.1              | 4        | 40       | 0.20          | 19127  | 8           | 120D2        | 2.05          | 60                                    | 2             | 0.42         | Yes  | 1.0             | 0.08                       | 0.70    |         |
| SCHULER WEST --     | 0.45           | 0.00             | 0.00             | 1.00         | 3              | 1250.0         | 1.0              | 1.1              | 4        | 26       | 0.09          | 19127  | 8           | L138C2       | 1.48          | 60                                    | 2             | 0.20         | Yes  | 1.0             | 0.08                       | 0.38    |         |
| HAUSER 3 --         | 1.70           | 0.00             | 0.00             | 1.00         | 3              | 807.0          | 1.0              | 1.1              | 4        | 24       | 0.38          | 19127  | 8           | 24E2         | 2.05          | 60                                    | 2             | 0.27         | Yes  | 1.0             | 0.08                       | 0.73    |         |
| HAUSER 1 --         | 0.82           | 0.00             | 0.00             | 1.00         | 3              | 350.0          | 1.0              | 1.1              | 4        | 25       | 0.28          | 19127  | 8           | 20D2         | 2.05          | 60                                    | 2             | 0.27         | Yes  | 1.0             | 0.08                       | 0.63    |         |



V. 4/2024

## Iowa Phosphorus Index

Credits: Iowa State University  
USDA National Soil Tilth Laboratory  
USDA Natural Resource Conservation Service

## Calculation Report

| Field Name -- Run # | Erosion       |                      |      |        | Runoff     |      |         |      | + Tile / Subsurface Recharge |       |        |      | Overall Index |      |
|---------------------|---------------|----------------------|------|--------|------------|------|---------|------|------------------------------|-------|--------|------|---------------|------|
|                     | Gross Erosion | Sediment Trap Factor | SDR  | Buffer | Enrichment | STP  | Erosion | RCN  | STP                          | P App | Runoff | Flow |               | STP  |
|                     |               |                      |      |        |            |      |         |      |                              |       |        |      |               |      |
| MCDONALD --         | 0.67          | 1.00                 | 0.25 | 1.00   | 1.10       | 0.80 | 0.15    | 2.05 | 0.16                         | 0.01  | 0.36   | 1.00 | 0.083         | 0.08 |
| GOECKE NUECE --     | 0.95          | 1.00                 | 0.23 | 1.00   | 1.10       | 0.82 | 0.20    | 2.05 | 0.19                         | 0.01  | 0.42   | 1.00 | 0.083         | 0.08 |
| SCHULER WEST --     | 0.45          | 1.00                 | 0.23 | 1.00   | 1.10       | 0.76 | 0.09    | 1.48 | 0.13                         | 0.01  | 0.20   | 1.00 | 0.083         | 0.08 |
| HAUSER 3 --         | 1.70          | 1.00                 | 0.27 | 1.00   | 1.10       | 0.76 | 0.38    | 2.05 | 0.12                         | 0.01  | 0.27   | 1.00 | 0.083         | 0.08 |
| HAUSER 1 --         | 0.82          | 1.00                 | 0.41 | 1.00   | 1.10       | 0.76 | 0.28    | 2.05 | 0.12                         | 0.01  | 0.27   | 1.00 | 0.083         | 0.08 |

## RUSLE2 Profile Erosion Calculation Record

Info: SCHULER WEST

File: profiles\EDLER

### Inputs:

Location: USA\Iowa\Marshall County  
 Soil: SSURGO\Marshall County, Iowa\L138C2 Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded\Clarion Loam Bemis moraine, moderately eroded 85%  
 Slope length (horiz): 150 ft  
 Avg. slope steepness: 12 %

| Management                                                    |  | Vegetation              | Yield units | # yield units, #/ac |
|---------------------------------------------------------------|--|-------------------------|-------------|---------------------|
| managements\CMZ 04\c.Other Local Mgt Records\corn grain;NT z4 |  | vegetations\Corn, grain | bushels     | 213.00              |

Contouring: a. rows up-and-down hill  
 Strips/barriers: (none)  
 Diversion/terrace, sediment basin: (none)  
 Subsurface drainage: (none)  
 Adjust res. burial level: Normal res. burial

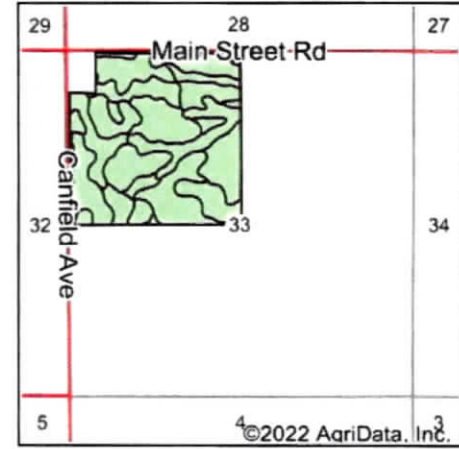
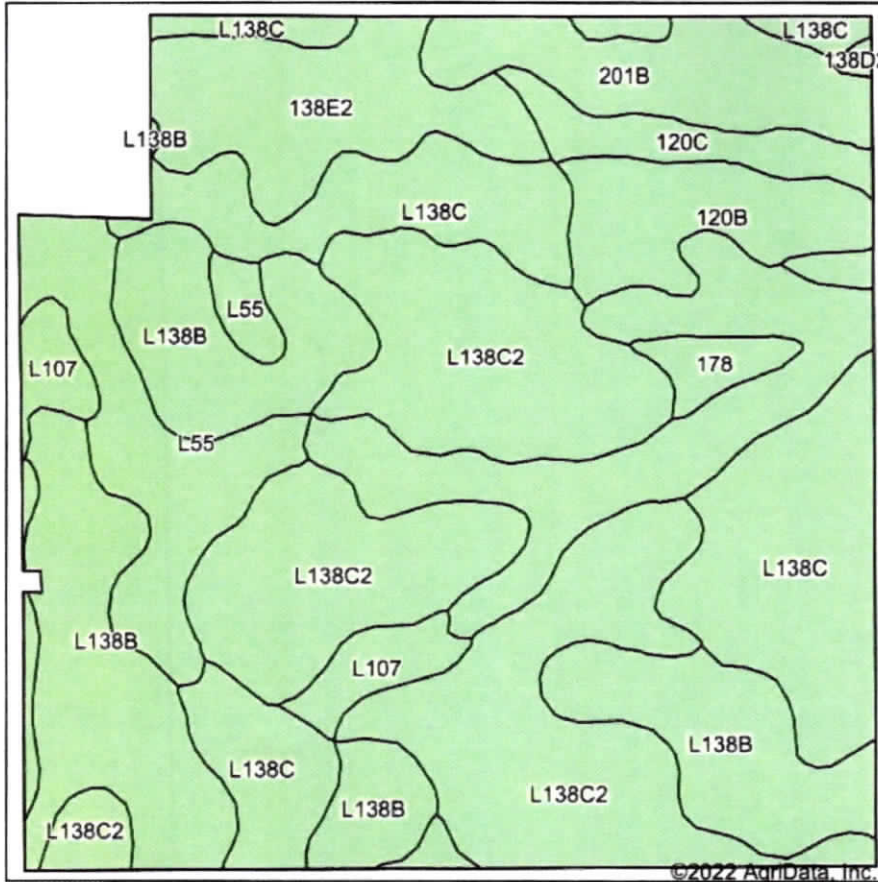
### Outputs:

T value: 5.0 t/ac/yr  
 Soil loss erod. portion: 0.45 t/ac/yr  
 Detachment on slope: 0.45 t/ac/yr  
 Soil loss for cons. plan: 0.45 t/ac/yr  
 Sediment delivery: 0.45 t/ac/yr

Crit. slope length: 150 ft  
 Surf. cover after planting: 94 %  
 Avg. ann. total biomass removal: 0 lb/ac

| Date    | Operation                                    | Vegetation  | Surf. res. cov. after op. % |
|---------|----------------------------------------------|-------------|-----------------------------|
| 11/15/1 | Fert applic. surface broadcast               |             | 97                          |
| 5/1/2   | Planter, double disk opnr w/fluted coulter   | Corn, grain | 94                          |
| 5/1/2   | Sprayer, pre-emergence                       |             | 94                          |
| 6/7/2   | Sprayer, post emergence and fert. tank mix   |             | 90                          |
| 10/20/2 | Harvest, killing crop 50pct standing stubble |             | 97                          |
| 10/20/2 | Manure injector, liquid low disturb.30 inch  |             | 97                          |

# SCHULER WEST SOIL



State: **Iowa**  
 County: **Marshall**  
 Location: **33-84N-20W**  
 Township: **Minerva**  
 Acres: **151.09**  
 Date: **7/14/2022**

Maps Provided By  
  
 CUSTOMIZED ONLINE MAPPING  
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Soils data provided by USDA and NRCS.

Area Symbol: IA127, Soil Area Version: 26

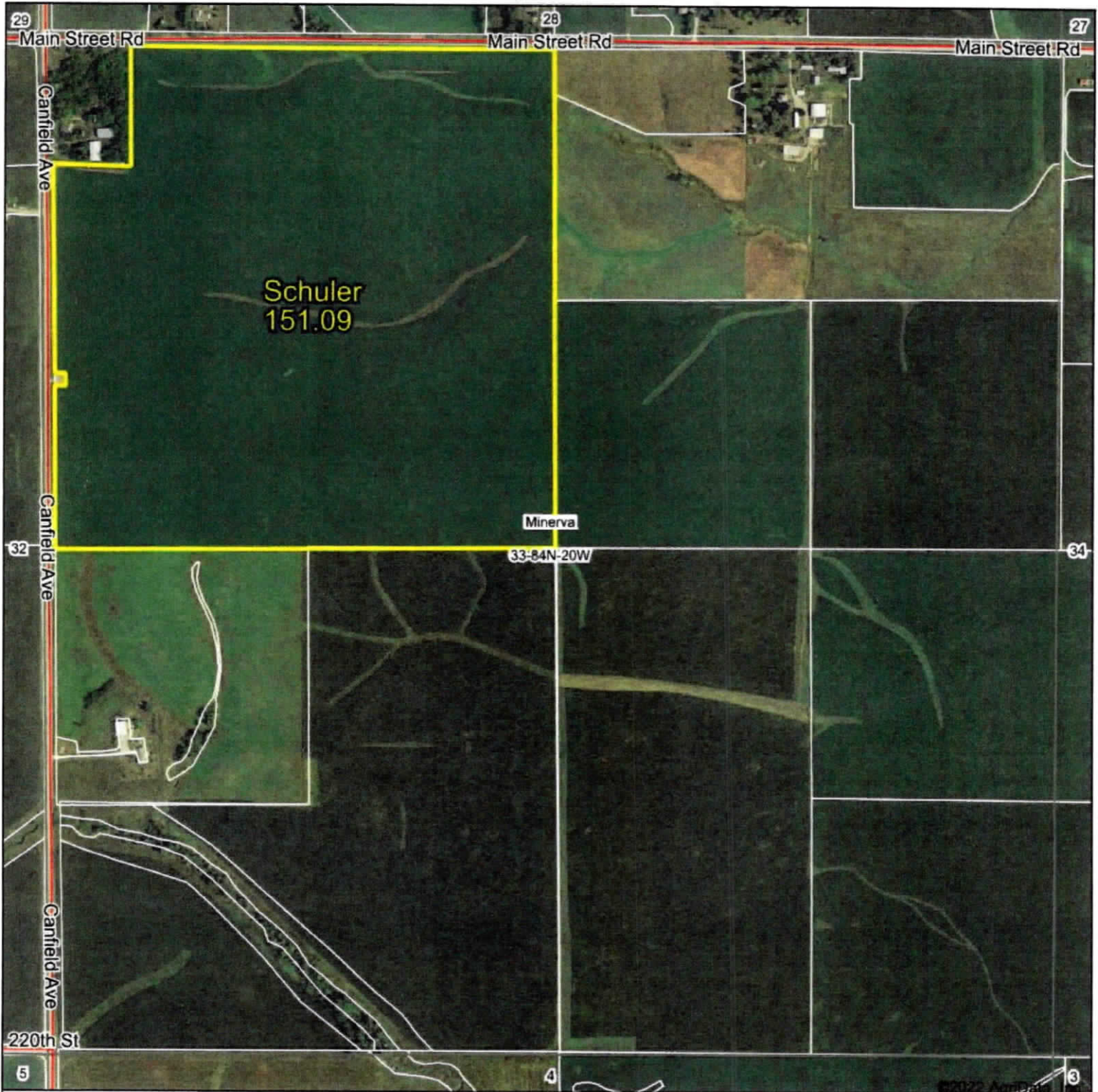
| Code                    | Soil Description                                                       | Acres | Percent of field | Non-Irr Class *c | CSR2**      | CSR       |
|-------------------------|------------------------------------------------------------------------|-------|------------------|------------------|-------------|-----------|
| L138C2                  | Clarion loam, Bemis moraine, 6 to 10 percent slopes, moderately eroded | 39.59 | 26.2%            | IIIe             | 83          |           |
| L138B                   | Clarion loam, Bemis moraine, 2 to 6 percent slopes                     | 29.13 | 19.3%            | Ile              | 88          |           |
| L138C                   | Clarion loam, Bemis moraine, 6 to 10 percent slopes                    | 26.01 | 17.2%            | IIIe             | 84          |           |
| 201B                    | Coland-Terril complex, 2 to 5 percent slopes                           | 20.61 | 13.6%            | IIw              | 75          | 67        |
| L55                     | Nicollet loam, 1 to 3 percent slopes                                   | 10.12 | 6.7%             | Ie               | 91          |           |
| 138E2                   | Clarion loam, 14 to 18 percent slopes, moderately eroded               | 9.70  | 6.4%             | IVe              | 44          | 47        |
| 120B                    | Tama silty clay loam, 2 to 5 percent slopes                            | 6.46  | 4.3%             | Ile              | 95          | 95        |
| 120C                    | Tama silty clay loam, 5 to 9 percent slopes                            | 3.93  | 2.6%             | IIIe             | 90          | 80        |
| L107                    | Webster clay loam, Bemis moraine, 0 to 2 percent slopes                | 3.70  | 2.4%             | IIw              | 88          |           |
| 178                     | Waukee loam, 0 to 2 percent slopes                                     | 1.61  | 1.1%             | IIs              | 69          | 79        |
| 138D2                   | Clarion loam, 9 to 14 percent slopes, moderately eroded                | 0.23  | 0.2%             | IIIe             | 56          | 58        |
| <b>Weighted Average</b> |                                                                        |       |                  | <b>2.52</b>      | <b>81.7</b> | <b>*-</b> |

\*\*IA has updated the CSR values for each county to CSR2.

\*- CSR weighted average cannot be calculated on the current soils data, use prior data version for csr values.

\*c: Using Capabilities Class Dominant Condition Aggregation Method

# SCHULER WEST



Map Center: 42° 2' 28.79, -93° 11' 6.26

0ft 813ft 1625ft

**33-84N-20W**  
**Marshall County**  
**Iowa**



Maps Provided By  
**surety**  
CUSTOMIZED ONLINE MAPPING  
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Field borders provided by Farm Service Agency as of 5/21/2008



## RUSLE2 Profile Erosion Calculation Record

Info: GOECKE NUECE

File: profiles\EDLER

Inputs:

Location: USA\Iowa\Marshall County

Soil: SSURGO\Marshall County, Iowa\20D3 Kiliduff silty clay loam, 9 to 14 percent slopes, severely eroded\Kiliduff Silty clay loam severely eroded 100%

Slope length (horiz): 150 ft

Avg. slope steepness: 12 %

| Management                                                    |  | Vegetation              | Yield units | # yield units, #/ac |
|---------------------------------------------------------------|--|-------------------------|-------------|---------------------|
| managements\CMZ 04\c.Other Local Mgt Records\corn grain;NT z4 |  | vegetations\Corn, grain | bushels     | 168.00              |

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

T value: 4.0 t/ac/yr

Soil loss erod. portion: 0.95 t/ac/yr

Detachment on slope: 0.95 t/ac/yr

Soil loss for cons. plan: 0.95 t/ac/yr

Sediment delivery: 0.95 t/ac/yr

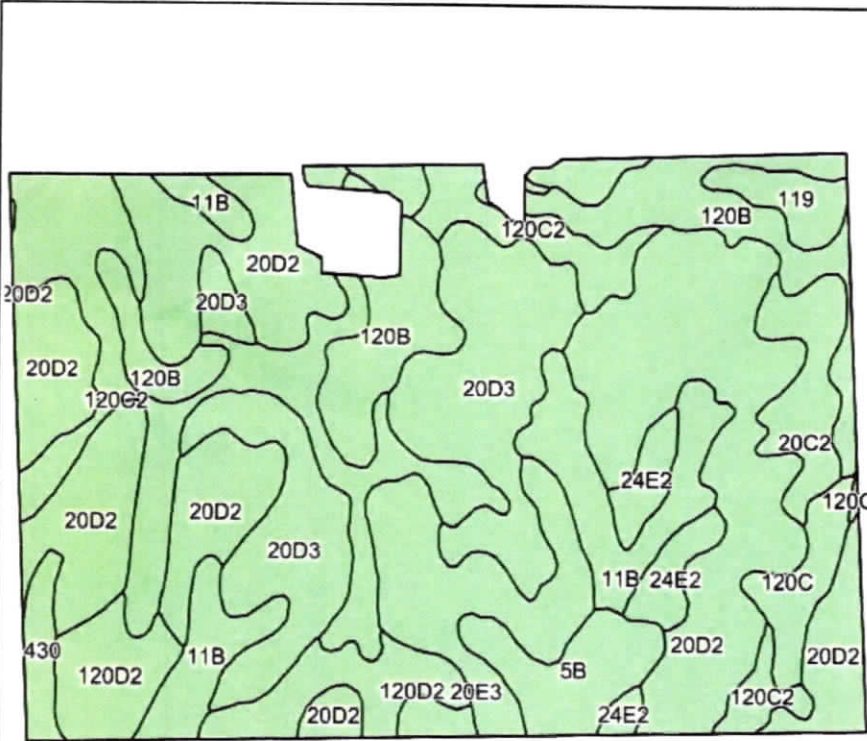
Crit. slope length: 150 ft

Surf. cover after planting: 89 %

Avg. ann. total biomass removal: 0 lb/ac

| Date    | Operation                                    | Vegetation  | Surf. res. cov. after op, % |
|---------|----------------------------------------------|-------------|-----------------------------|
| 11/15/1 | Fert applic. surface broadcast               |             | 93                          |
| 5/1/2   | Planter, double disk opnr w/fluted coulter   | Corn, grain | 89                          |
| 5/1/2   | Sprayer, pre-emergence                       |             | 89                          |
| 6/7/2   | Sprayer, post emergence and fert. tank mix   |             | 85                          |
| 10/20/2 | Harvest, killing crop 50pct standing stubble |             | 94                          |
| 10/20/2 | Manure injector, liquid low disturb. 30 inch |             | 94                          |

# GOECKE NUECE SOIL



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Soils data provided by USDA and NRCS.



State: **Iowa**  
 County: **Marshall**  
 Location: **33-84N-19W**  
 Township: **Marietta**  
 Acres: **225.27**  
 Date: **7/14/2022**

Maps Provided By:  
  
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Area Symbol: IA127, Soil Area Version: 26

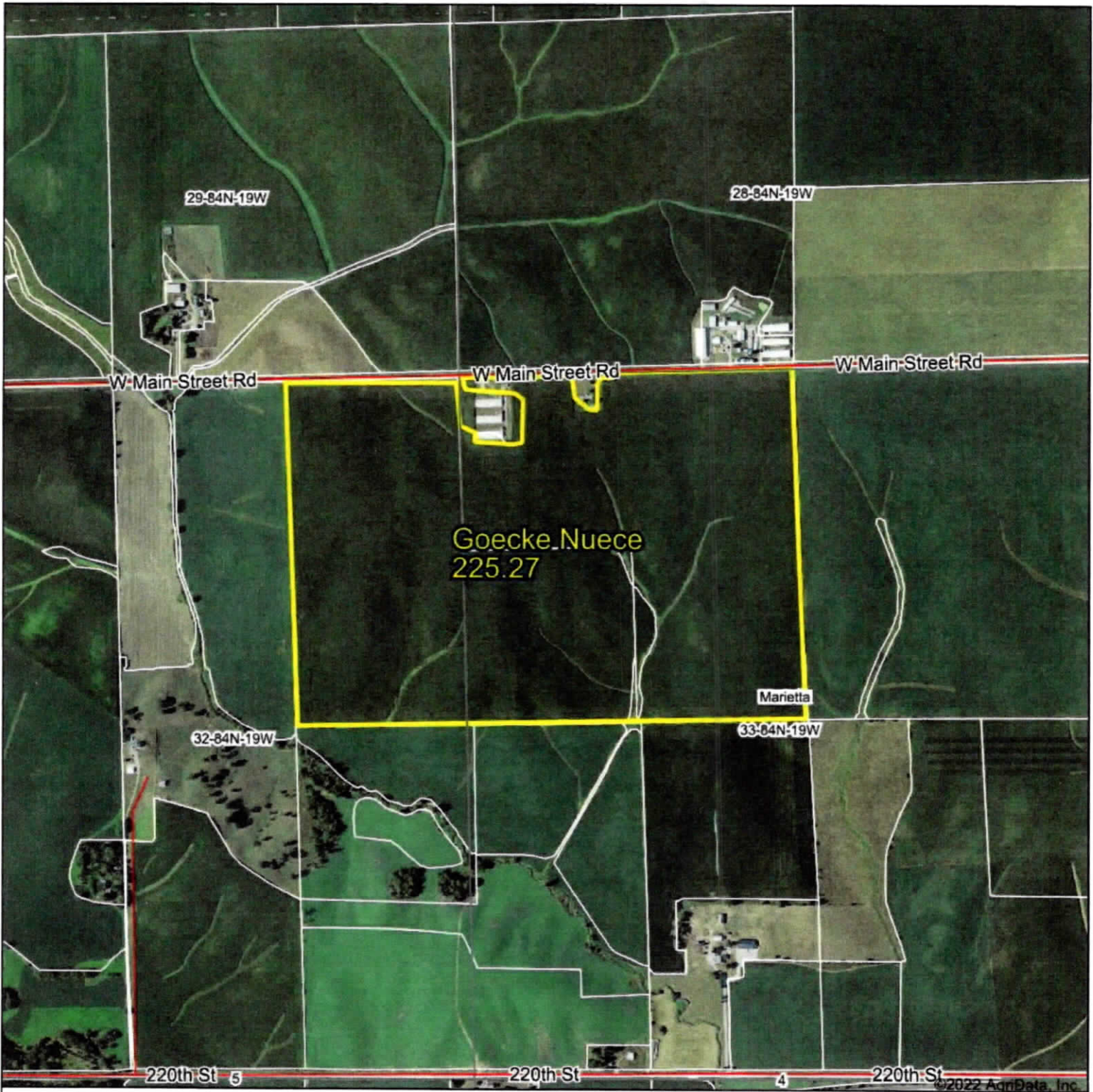
| Code                    | Soil Description                                                   | Acres | Percent of field | Non-Irr Class *c | CSR2**      | CSR         |
|-------------------------|--------------------------------------------------------------------|-------|------------------|------------------|-------------|-------------|
| 20D2                    | Killduff silty clay loam, 9 to 14 percent slopes, eroded           | 70.87 | 31.5%            | IIe              | 55          | 63          |
| 120C2                   | Tama silty clay loam, 5 to 9 percent slopes, eroded                | 31.70 | 14.1%            | IIe              | 87          | 78          |
| 20D3                    | Killduff silty clay loam, 9 to 14 percent slopes, severely eroded  | 31.13 | 13.8%            | IVe              | 51          | 60          |
| 120B                    | Tama silty clay loam, 2 to 5 percent slopes                        | 20.84 | 9.3%             | Ile              | 95          | 95          |
| 11B                     | Colo-Ely complex, 0 to 5 percent slopes                            | 15.54 | 6.9%             | IIw              | 86          | 68          |
| 20E3                    | Killduff silty clay loam, 14 to 18 percent slopes, severely eroded | 13.48 | 6.0%             | VIe              | 39          | 50          |
| 120D2                   | Tama silty clay loam, 9 to 14 percent slopes, eroded               | 12.63 | 5.6%             | IIe              | 62          | 68          |
| 5B                      | Ackmore-Colo complex, 2 to 5 percent slopes                        | 6.98  | 3.1%             | IIw              | 77          | 70          |
| 20C2                    | Killduff silty clay loam, 5 to 9 percent slopes, eroded            | 6.54  | 2.9%             | IIe              | 81          | 73          |
| 24E2                    | Shelby loam, 14 to 18 percent slopes, moderately eroded            | 5.52  | 2.5%             | IVe              | 37          | 38          |
| 120C                    | Tama silty clay loam, 5 to 9 percent slopes                        | 4.30  | 1.9%             | IIe              | 90          | 80          |
| 119                     | Muscataine silty clay loam, 0 to 2 percent slopes                  | 3.14  | 1.4%             | Iw               | 100         | 100         |
| 430                     | Ackmore silt loam, 0 to 2 percent slopes, occasionally flooded     | 2.60  | 1.2%             | IIw              | 70          | 83          |
| <b>Weighted Average</b> |                                                                    |       |                  | <b>3.11</b>      | <b>66.7</b> | <b>68.5</b> |

\*\*IA has updated the CSR values for each county to CSR2.

\*c: Using Capabilities Class Dominant Condition Aggregation Method

Soils data provided by USDA and NRCS.

# GOECKE NUECE



Map Center: 42° 2' 42.64, -93° 4' 31.62

0ft 1174ft 2348ft

**33-84N-19W**  
**Marshall County**  
**Iowa**



Maps Provided By:  
**surety**  
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Field borders provided by Farm Service Agency as of 5/21/2008.

## RUSLE2 Profile Erosion Calculation Record

Info: MCDONALD

**File:** profiles\EDLER

**Inputs:**

Location: USA\Iowa\Marshall County  
 Soil: SSURGO\Marshall County, Iowa\120D2 Tama silty clay loam, 9 to 14 percent slopes, eroded\Tama Silty clay loam eroded 90%  
 Slope length (horiz): 150 ft  
 Avg. slope steepness: 12 %

| Management                                                    |  | Vegetation              | Yield units | # yield units, #/ac |
|---------------------------------------------------------------|--|-------------------------|-------------|---------------------|
| managements\CMZ 04\c.Other Local Mgt Records\corn grain;NT z4 |  | vegetations\Corn, grain | bushels     | 179.00              |

Contouring: a. rows up-and-down hill  
 Strips/barriers: (none)  
 Diversion/terrace, sediment basin: (none)  
 Subsurface drainage: (none)  
 Adjust res. burial level: Normal res. burial

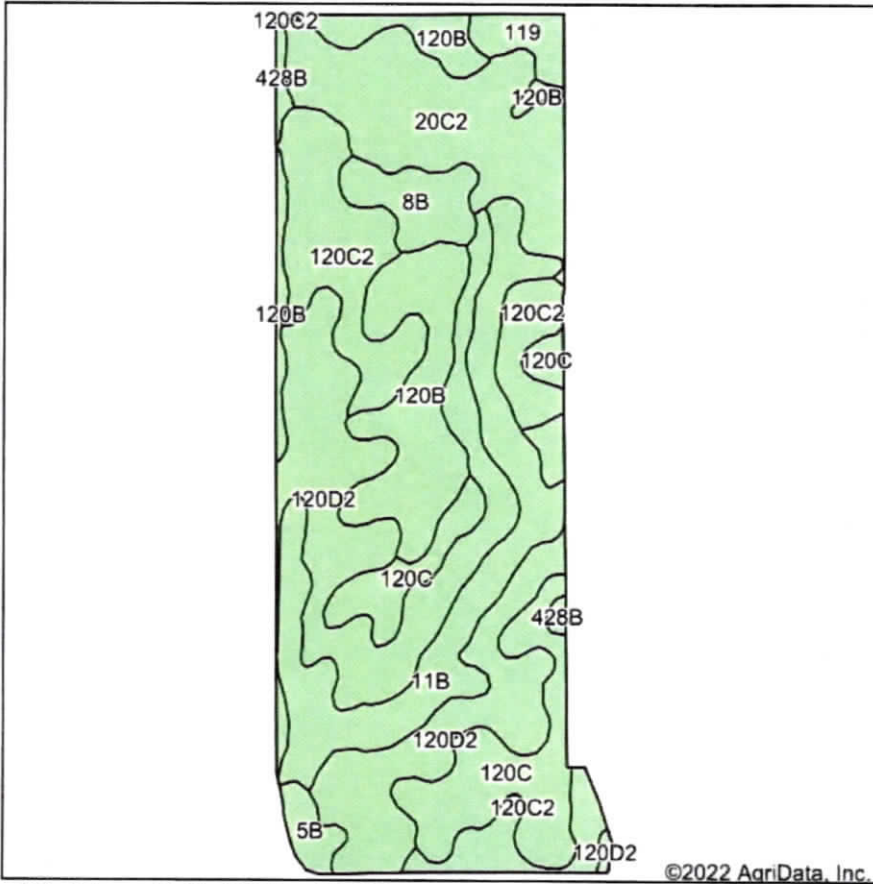
**Outputs:**

T value: 5.0 t/ac/yr  
 Soil loss erod. portion: 0.67 t/ac/yr  
 Detachment on slope: 0.67 t/ac/yr  
 Soil loss for cons. plan: 0.67 t/ac/yr  
 Sediment delivery: 0.67 t/ac/yr

Crit. slope length: 150 ft  
 Surf. cover after planting: 91 %  
 Avg. ann. total biomass removal: 0 lb/ac

| Date    | Operation                                    | Vegetation  | Surf. res. cov. after op, % |
|---------|----------------------------------------------|-------------|-----------------------------|
| 11/15/1 | Fert applic. surface broadcast               |             | 94                          |
| 5/1/2   | Planter, double disk opnr w/fluted coulter   | Corn, grain | 91                          |
| 5/1/2   | Sprayer, pre-emergence                       |             | 91                          |
| 6/7/2   | Sprayer, post emergence and fert. tank mix   |             | 86                          |
| 10/20/2 | Harvest, killing crop 50pct standing stubble |             | 95                          |
| 10/20/2 | Manure injector, liquid low disturb.30 inch  |             | 95                          |

# McDONALD SOIL



State: **Iowa**  
 County: **Marshall**  
 Location: **32-85N-19W**  
 Township: **Bangor**  
 Acres: **117.87**  
 Date: **7/14/2022**

Maps Provided By  
**surety**  
 CUSTOMIZED ONLINE MAPPING  
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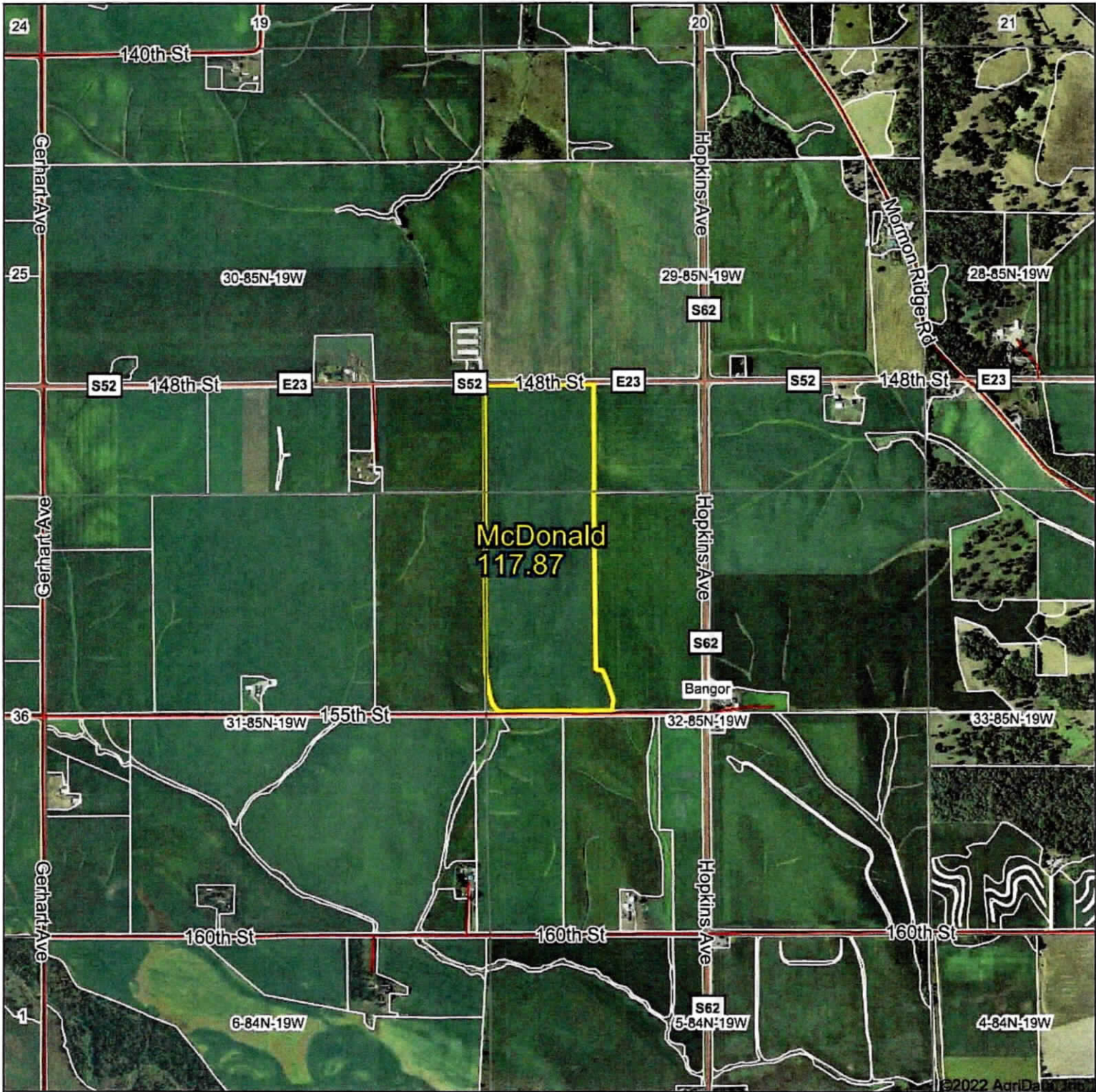
Area Symbol: IA127, Soil Area Version: 26

| Code                    | Soil Description                                        | Acres | Percent of field | Non-Irr Class *c | CSR2**      | CSR         |
|-------------------------|---------------------------------------------------------|-------|------------------|------------------|-------------|-------------|
| 120D2                   | Tama silty clay loam, 9 to 14 percent slopes, eroded    | 32.32 | 27.4%            | IIIe             | 62          | 68          |
| 120C2                   | Tama silty clay loam, 5 to 9 percent slopes, eroded     | 16.95 | 14.4%            | IIIe             | 87          | 78          |
| 11B                     | Colo-Ely complex, 0 to 5 percent slopes                 | 16.19 | 13.7%            | IIw              | 86          | 68          |
| 20C2                    | Killduff silty clay loam, 5 to 9 percent slopes, eroded | 15.72 | 13.3%            | IIIe             | 81          | 73          |
| 120B                    | Tama silty clay loam, 2 to 5 percent slopes             | 14.61 | 12.4%            | IIe              | 95          | 95          |
| 120C                    | Tama silty clay loam, 5 to 9 percent slopes             | 13.55 | 11.5%            | IIIe             | 90          | 80          |
| 8B                      | Judson silty clay loam, 2 to 5 percent slopes           | 3.93  | 3.3%             | IIe              | 93          | 90          |
| 119                     | Muscatine silty clay loam, 0 to 2 percent slopes        | 2.15  | 1.8%             | Iw               | 100         | 100         |
| 5B                      | Ackmore-Colo complex, 2 to 5 percent slopes             | 1.63  | 1.4%             | IIw              | 77          | 70          |
| 428B                    | Ely silty clay loam, 2 to 5 percent slopes              | 0.82  | 0.7%             | IIe              | 88          | 88          |
| <b>Weighted Average</b> |                                                         |       |                  | <b>2.65</b>      | <b>80.8</b> | <b>76.3</b> |

\*\*IA has updated the CSR values for each county to CSR2.

\*c: Using Capabilities Class Dominant Condition Aggregation Method

McDONALD



Map Center: 42° 8' 5.42, -93° 5' 42.58

0ft 1856ft 3712ft

32-85N-19W  
Marshall County  
Iowa



Maps Provided By:  
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Field borders provided by Farm Service Agency as of 5/21/2008.

## RUSLE2 Profile Erosion Calculation Record

Info: HAUSER 3

File: profiles\EDLER

### Inputs:

Location: USA\Iowa\Marshall County  
 Soil: SSURGO\Marshall County, Iowa\24E2 Shelby loam, 14 to 18 percent slopes, moderately eroded\Shelby Loam moderately eroded 90%  
 Slope length (horiz): 150 ft  
 Avg. slope steepness: 12 %

| Management                                                    | Vegetation              | Yield units | # yield units, #/ac |
|---------------------------------------------------------------|-------------------------|-------------|---------------------|
| managements\CMZ 04\c.Other Local Mgt Records\corn grain;NT z4 | vegetations\Corn, grain | bushels     | 139.00              |

Contouring: a. rows up-and-down hill  
 Strips/barriers: (none)  
 Diversion/terrace, sediment basin: (none)  
 Subsurface drainage: (none)  
 Adjust res. burial level: Normal res. burial

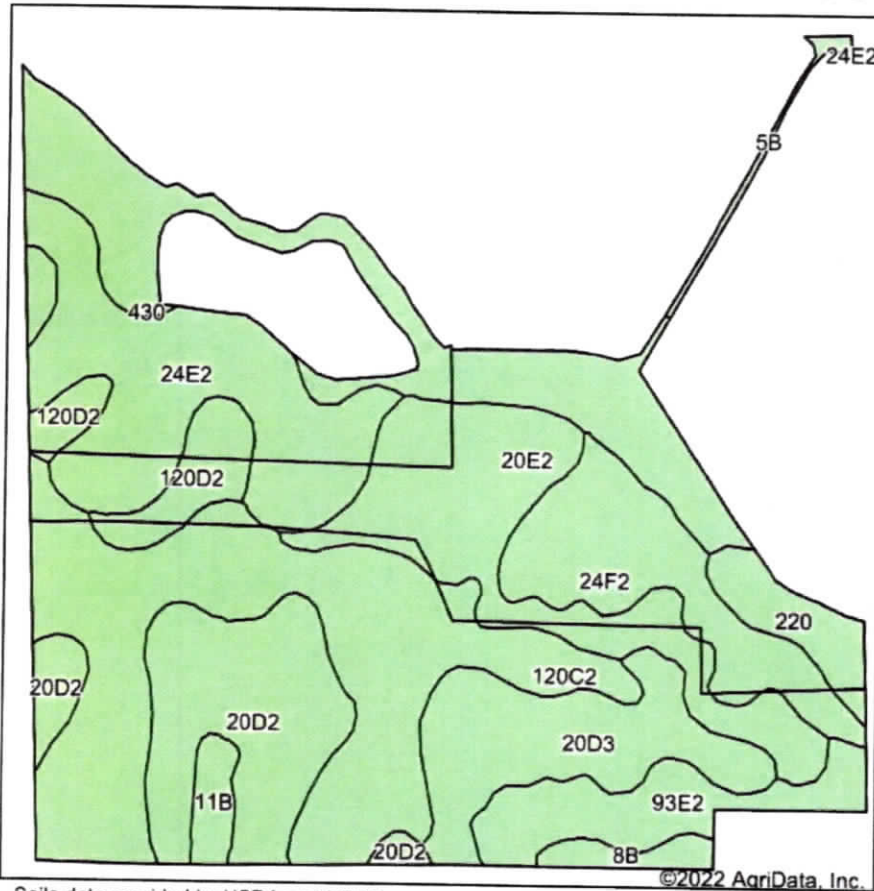
### Outputs:

T value: 5.0 t/ac/yr  
 Soil loss erod. portion: 1.7 t/ac/yr  
 Detachment on slope: 1.7 t/ac/yr  
 Soil loss for cons. plan: 1.7 t/ac/yr  
 Sediment delivery: 1.7 t/ac/yr

Crit. slope length: 150 ft  
 Surf. cover after planting: 85 %  
 Avg. ann. total biomass removal: 0 lb/ac

| Date    | Operation                                    | Vegetation  | Surf. res. cov. after op, % |
|---------|----------------------------------------------|-------------|-----------------------------|
| 11/15/1 | Fert applic. surface broadcast               |             | 89                          |
| 5/1/2   | Planter, double disk opnr w/fluted coulter   | Corn, grain | 85                          |
| 5/1/2   | Sprayer, pre-emergence                       |             | 85                          |
| 6/7/2   | Sprayer, post emergence and fert. tank mix   |             | 80                          |
| 10/20/2 | Harvest, killing crop 50pct standing stubble |             | 90                          |
| 10/20/2 | Manure injector, liquid low disturb.30 inch  |             | 90                          |

# HAUSER 3 SOIL



State: **Iowa**  
 County: **Marshall**  
 Location: **33-84N-19W**  
 Township: **Marietta**  
 Acres: **96.26**  
 Date: **8/2/2022**

Maps Provided By



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Soils data provided by USDA and NRCS.

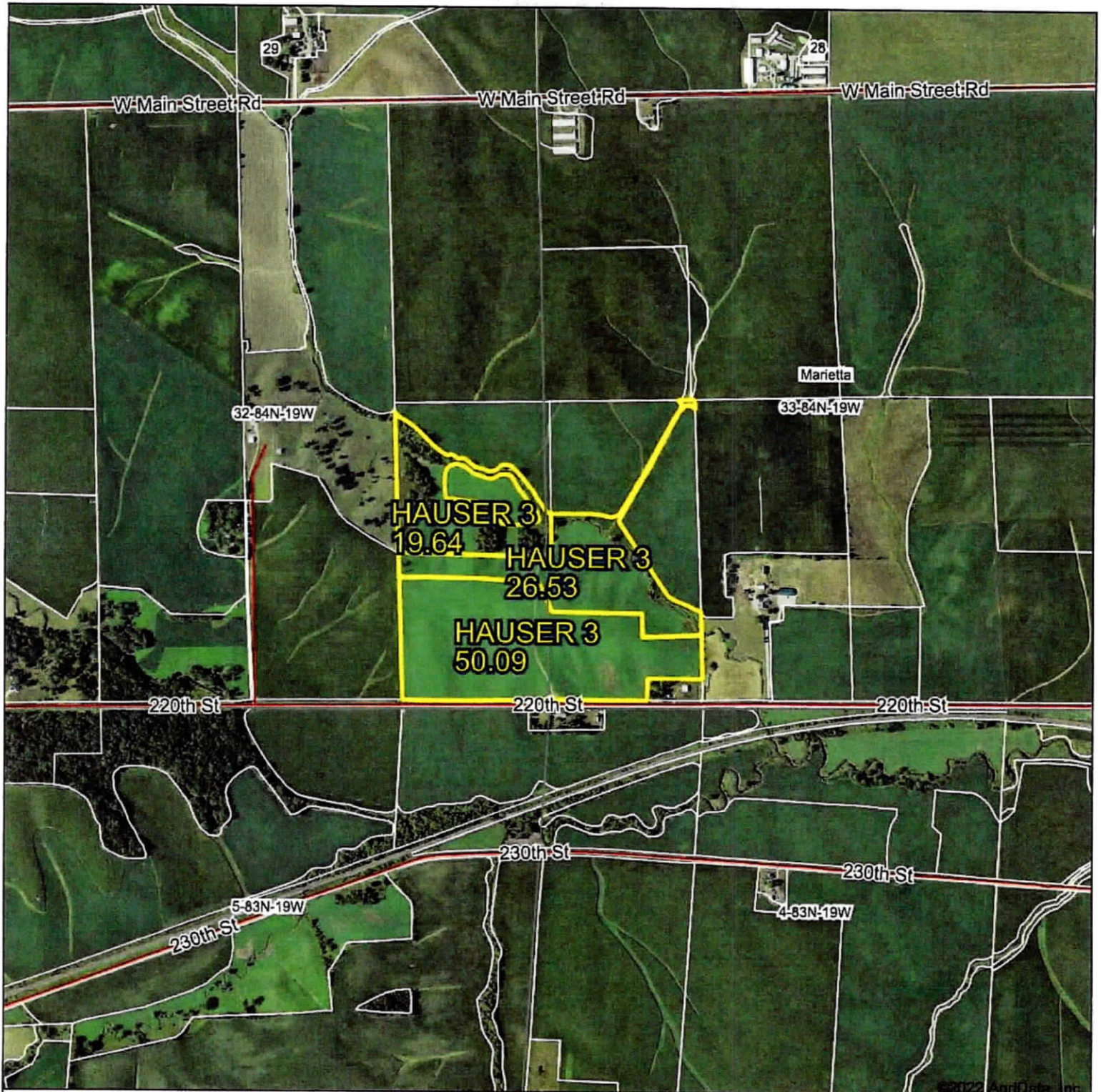
Area Symbol: IA127, Soil Area Version: 26

| Code                    | Soil Description                                                              | Acres | Percent of field | Non-Irr Class *c | CSR2**      | CSR         |
|-------------------------|-------------------------------------------------------------------------------|-------|------------------|------------------|-------------|-------------|
| 120C2                   | Tama silty clay loam, 5 to 9 percent slopes, eroded                           | 21.27 | 22.1%            | IIIe             | 87          | 78          |
| 24E2                    | Shelby loam, 14 to 18 percent slopes, moderately eroded                       | 12.67 | 13.2%            | IVe              | 37          | 38          |
| 430                     | Ackmore silt loam, 0 to 2 percent slopes, occasionally flooded                | 11.48 | 11.9%            | IIw              | 70          | 83          |
| 20E2                    | Killduff silty clay loam, 14 to 18 percent slopes, eroded                     | 11.03 | 11.5%            | IVe              | 44          | 53          |
| 20D2                    | Killduff silty clay loam, 9 to 14 percent slopes, eroded                      | 10.37 | 10.8%            | IIIe             | 55          | 63          |
| 20D3                    | Killduff silty clay loam, 9 to 14 percent slopes, severely eroded             | 7.88  | 8.2%             | IVe              | 51          | 60          |
| 24F2                    | Shelby loam, 18 to 25 percent slopes, moderately eroded                       | 7.72  | 8.0%             | VIe              | 21          | 18          |
| 93E2                    | Shelby-Adair complex, 14 to 18 percent slopes, moderately erode               | 4.94  | 5.1%             | IVe              | 31          | 10          |
| 120D2                   | Tama silty clay loam, 9 to 14 percent slopes, eroded                          | 3.81  | 4.0%             | IIIe             | 62          | 68          |
| 220                     | Nodaway silt loam, shallow loess, 0 to 2 percent slopes, occasionally flooded | 2.41  | 2.5%             | IIw              | 77          | 90          |
| 11B                     | Colo-Ely complex, 0 to 5 percent slopes                                       | 1.17  | 1.2%             | IIw              | 86          | 68          |
| 8B                      | Judson silty clay loam, 2 to 5 percent slopes                                 | 1.02  | 1.1%             | IIe              | 93          | 90          |
| 5B                      | Ackmore-Colo complex, 2 to 5 percent slopes                                   | 0.49  | 0.5%             | IIw              | 77          | 70          |
| <b>Weighted Average</b> |                                                                               |       |                  | <b>3.45</b>      | <b>57.7</b> | <b>58.9</b> |

\*\*IA has updated the CSR values for each county to CSR2.

\*c: Using Capabilities Class Dominant Condition Aggregation Method

# HAUSER 3



Map Center: 42° 2' 16.47, -93° 4' 38.75

0ft 1353ft 2706ft

**33-84N-19W**  
**Marshall County**  
**Iowa**



Maps Provided By:



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Field borders provided by Farm Service Agency as of 5/21/2008

## RUSLE2 Profile Erosion Calculation Record

Info: HAUSER 1

**File:** profiles\default

**Inputs:**

Location: USA\Iowa\Marshall County

Soil: SSURGO\Marshall County, Iowa\20D3 Killduff silty clay loam, 9 to 14 percent slopes, severely eroded\Killduff Silty clay loam severely eroded 100%

Slope length (horiz): 150 ft

Avg. slope steepness: 12 %

| Management                                         | Vegetation                         | Yield units | # yield units, #/ac |
|----------------------------------------------------|------------------------------------|-------------|---------------------|
| managements\CMZ 04\c.Other Local Mgt Records\EDLER | vegetations\Corn, grain            | bushels     | 168.00              |
| managements\CMZ 04\c.Other Local Mgt Records\EDLER | vegetations\Soybean, mw 30 in rows | bu          | 49.000              |

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

**Outputs:**

T value: 4.0 t/ac/yr

Soil loss erod. portion: 2.1 t/ac/yr

Detachment on slope: 2.1 t/ac/yr

Soil loss for cons. plan: 2.1 t/ac/yr

Sediment delivery: 2.1 t/ac/yr

Crit. slope length: 150 ft

Surf. cover after planting: -- %

Avg. ann. total biomass removal: 0 lb/ac

| Date    | Operation                                    | Vegetation             | Surf. res. cov |
|---------|----------------------------------------------|------------------------|----------------|
| 11/1/0  | Fert applic. surface broadcast               |                        | 83             |
| 5/1/1   | Sprayer, pre-emergence                       |                        | 68             |
| 5/1/1   | planter, double disk opnr                    | Corn, grain            | 68             |
| 6/7/1   | Sprayer, post emergence and fert. tank mix   |                        | 57             |
| 10/20/1 | Harvest, killing crop 50pct standing stubble |                        | 84             |
| 5/10/2  | Sprayer, pre-emergence                       |                        | 84             |
| 5/10/2  | planter, double disk opnr                    | Soybean, mw 30 in rows | 84             |
| 6/7/2   | Sprayer, post emergence                      |                        | 84             |
| 8/1/2   | Sprayer, insecticide post emergence          |                        | 67             |
| 10/10/2 | Harvest, killing crop 20pct standing stubble |                        | 87             |
| 10/10/2 | Manure injector, low disturb.30 inch         |                        | 87             |



## RUSLE2 Profile Erosion Calculation Record

Info: HAUSER 1

File: profiles\EDLER

**Inputs:**

Location: USA\Iowa\Marshall County  
Soil: SSURGO\Marshall County, Iowa\20D2 Killduff silty clay loam, 9 to 14 percent slopes, eroded\Killduff Silty clay loam eroded 95%  
Slope length (horiz): 150 ft  
Avg. slope steepness: 12 %

| Management                                                    |  | Vegetation              | Yield units | # yield units, #/ac |
|---------------------------------------------------------------|--|-------------------------|-------------|---------------------|
| managements\CMZ 04\c.Other Local Mgt Records\corn grain:NT z4 |  | vegetations\Corn, grain | bushels     | 168.00              |

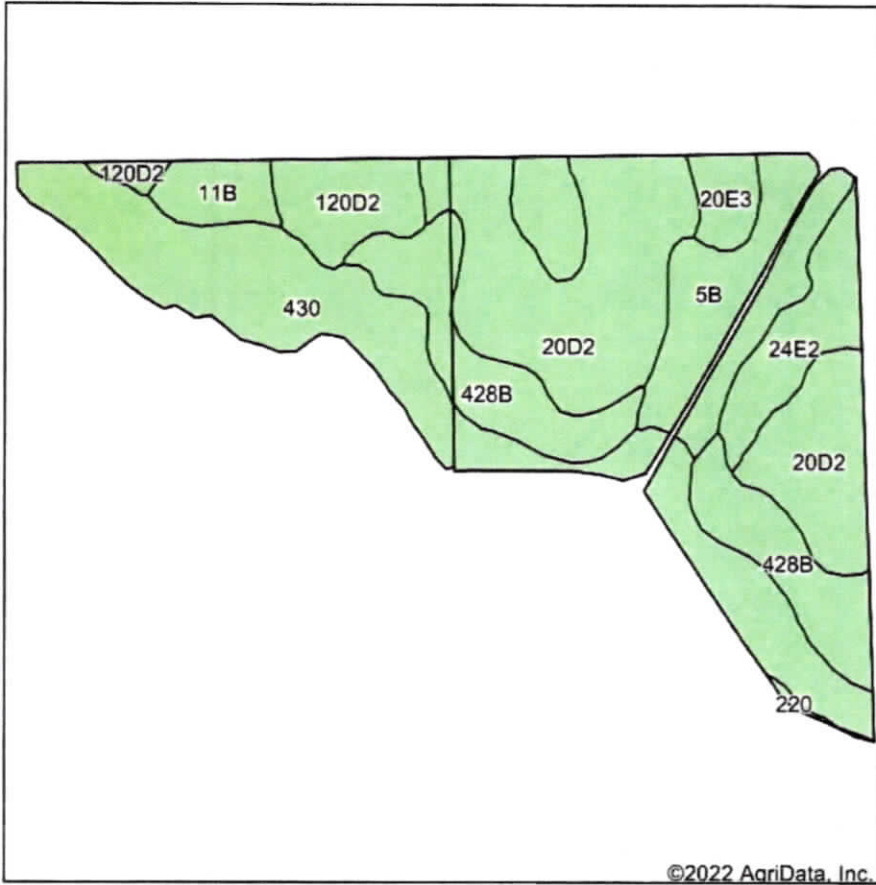
Contouring: a. rows up-and-down hill  
Strips/barriers: (none)  
Diversion/terrace, sediment basin: (none)  
Subsurface drainage: (none)  
Adjust res. burial level: Normal res. burial

**Outputs:**

T value: 5.0 t/ac/yr  
Soil loss erod. portion: 0.82 t/ac/yr  
Detachment on slope: 0.82 t/ac/yr  
Soil loss for cons. plan: 0.82 t/ac/yr  
Sediment delivery: 0.82 t/ac/yr  
  
Crit. slope length: 150 ft  
Surf. cover after planting: 89 %  
Avg. ann. total biomass removal: 0 lb/ac

| Date    | Operation                                    | Vegetation  | Surf. res. cov. after op, % |
|---------|----------------------------------------------|-------------|-----------------------------|
| 11/15/1 | Fert applic. surface broadcast               |             | 93                          |
| 5/1/2   | Planter, double disk opnr w/fluted coulters  | Corn, grain | 89                          |
| 5/1/2   | Sprayer, pre-emergence                       |             | 89                          |
| 6/7/2   | Sprayer, post emergence and fert. tank mix   |             | 85                          |
| 10/20/2 | Harvest, killing crop 50pct standing stubble |             | 94                          |
| 10/20/2 | Manure injector, liquid low disturb.30 inch  |             | 94                          |

# HAUSER 1 SOIL



State: **Iowa**  
 County: **Marshall**  
 Location: **33-84N-19W**  
 Township: **Marietta**  
 Acres: **52.97**  
 Date: **8/2/2022**

Maps Provided By:  
  
 CUSTOMIZED ONLINE MAPPING  
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Soils data provided by USDA and NRCS.

Area Symbol: IA127, Soil Area Version: 26

| Code                    | Soil Description                                                              | Acres | Percent of field | Non-Irr Class *c | CSR2**      | CSR         |
|-------------------------|-------------------------------------------------------------------------------|-------|------------------|------------------|-------------|-------------|
| 20D2                    | Killduff silty clay loam, 9 to 14 percent slopes, eroded                      | 14.19 | 26.8%            | IIIe             | 55          | 63          |
| 430                     | Ackmore silt loam, 0 to 2 percent slopes, occasionally flooded                | 13.80 | 26.1%            | IIw              | 70          | 83          |
| 428B                    | Ely silty clay loam, 2 to 5 percent slopes                                    | 8.10  | 15.3%            | Ile              | 88          | 88          |
| 5B                      | Ackmore-Colo complex, 2 to 5 percent slopes                                   | 5.86  | 11.1%            | IIw              | 77          | 70          |
| 120D2                   | Tama silty clay loam, 9 to 14 percent slopes, eroded                          | 4.72  | 8.9%             | IIIe             | 62          | 68          |
| 24E2                    | Shelby loam, 14 to 18 percent slopes, moderately eroded                       | 3.27  | 6.2%             | IVe              | 37          | 38          |
| 11B                     | Colo-Ely complex, 0 to 5 percent slopes                                       | 1.63  | 3.1%             | IIw              | 86          | 68          |
| 20E3                    | Killduff silty clay loam, 14 to 18 percent slopes, severely eroded            | 1.27  | 2.4%             | VIe              | 39          | 50          |
| 220                     | Nodaway silt loam, shallow loess, 0 to 2 percent slopes, occasionally flooded | 0.13  | 0.2%             | IIw              | 77          | 90          |
| <b>Weighted Average</b> |                                                                               |       |                  | <b>2.58</b>      | <b>66.5</b> | <b>71.6</b> |

\*\*IA has updated the CSR values for each county to CSR2.

\*c: Using Capabilities Class Dominant Condition Aggregation Method

# HAUSER 1



Map Center: 42° 2' 20.39, -93° 4' 38.87

0ft 1355ft 2710ft

**33-84N-19W**  
**Marshall County**  
**Iowa**

Maps Provided By:  
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Field borders provided by Farm Service Agency as of 5/21/2008.