

# NONMETALLIC MINING RECLAMATION PLAN FOR NO MERCY EXCAVATING

Town of Wheaton, Chippewa County, Wisconsin

10/12/2016

AC/a Project# 5282-001

Applicant:

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No Mercy Excavating  
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Chippewa Falls, WI 54729

Prepared By:

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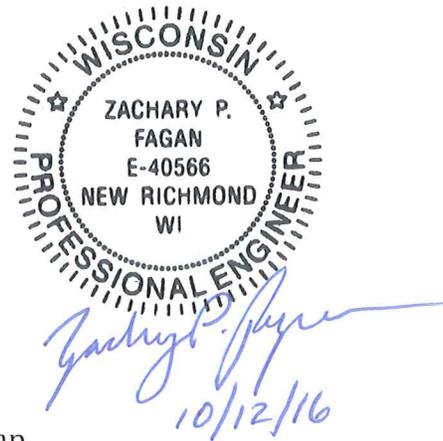


*Zachary P. Fagan*  
10/12/16

## Appendix Index

### Appendix 1

Figure 1	Site Location Map
Figure 2	WDNR- Aerial Photo
Figure 3	WDNR- USGS Topographical Map
Figure 4	WDNR Wetland Map
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Figure 6	Generalized Water-Table Elevation Map
Figure 7	Bedrock Geology of Wisconsin – West-Central Region



### Appendix 2

#### Site Plans:

Sheet #C1.0	Existing Site Conditions
Sheet #C2.0	General Mining Plan
Sheet #C3.0	Reclamation Plan
Sheet #C4.0-C4.2	Details
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### Appendix 3

Certification of Reclamation Plan & Financial Assurance

### Appendix 4

Wisconsin Department of Natural Resources – Endangered Resource Review

### Appendix 5

Storm Water Basin Calculations

## A. OVERVIEW

1) Applicant:

No Mercy Excavating

2) Applicant Address:

6161 CTY X  
Chippewa Falls, WI 54729

3) Property Owner:

Daryl S Wojcik  
No Mercy Excavating- Operator  
Phone (715)874-6400

4) Property Address:

6161 CTY X  
Chippewa Falls, WI 54729

5) Location/Legal Description:

Town of Wheaton, Chippewa County  
NW  $\frac{1}{4}$  of the NW $\frac{1}{4}$  Except 0.16 ac and 2.2 ac parcels for STH 29 ROW and Except 1.1  
ac on the SW corner of parcel  
PIN 22810-2422-00020000  
SW  $\frac{1}{4}$  of the NW $\frac{1}{4}$  LOT 2 CSM 4230 VOL 19 P146  
PIN 22810-2423-74230002  
SW  $\frac{1}{4}$  of the NW $\frac{1}{4}$  LOT 1 CSM 4230 VOL 19 P146  
PIN 22810-2423-74230001  
SE  $\frac{1}{4}$  of the NW $\frac{1}{4}$  Lying North of STH 29 ROW  
PIN 22810-2424-0100000

All in Section 24, T28N, R10W

6) Zoning:

Site is primarily open space uses, with the exception of the No Mercy facility that  
was recently constructed.

7) Size:

Mining Area is approximately 60 acres, which does not include the existing No  
Mercy facility.

## 8) Use:

The owner/operator of the property proposes to extract, crush and screen sand and gravel material to be used for general construction purposes. No washing of material will occur at the site. Sand and gravel will be removed on a demand basis and hauled to the construction project site. All mining operations will comply with the statewide nonmetallic mining reclamation standards established in NR135 and the Chippewa County Nonmetallic Mining Reclamation Ordinance.

Existing pulverization operations of offsite topsoil and the importing/exporting of the offsite topsoil will continue at the site during mining operations. These operations will be segregated from mining operations. In addition, existing operations at the existing shop and yard will remain during the mining operations and will also be separate from mining operations.

## B. SITE INFORMATION

### 1) General Location Map

Attached is a site location map showing the site location in relation to Wheaton Township (Appendix 1 – Figure 1).

### 2) Aerial Map of Site

Attached is an aerial map derived from the Wisconsin Department of Natural Resources Surface Water Viewer (Appendix 1 -Figure 2). The approximate limits of non-metallic mining operations are shown.

### 3) USGS Map- surface waters/drainage patterns

Attached is a USGS map of the area derived from the Wisconsin Department of Natural Resources Surface Water Viewer (Appendix 1 -Figure 3). The approximate limits of non-metallic mining operations are shown.

### 4) Groundwater/Wells

Groundwater at the site was obtained from the Generalized Water-Table Map of Chippewa County (Appendix 1- Figure 6). Groundwater on the site, in general, follows the topography. No mining within groundwater is proposed.

Appendix 2 sheet C1.0 graphically shows the location of residences within 660' of the mining boundary. The following homes fall within the 660':

Steven Cory – 4085 County Hwy T, Chippewa Falls, WI 54729  
Elmer & Mary Eckwright – 4705 County Hwy T, Chippewa Falls, WI 54729  
Larry & Diane Seidlitz – 6338 County Hwy X, Chippewa Falls, WI 54729  
Donald & Rosanna Anderson – 6401 County Hwy X, Chippewa Falls, WI 54729  
Chad Kragness – 6306 County Hwy X, Chippewa Falls, WI 54729  
Daryl Wojcik – 4499 106<sup>th</sup> St, Chippewa Falls, WI 54729  
Ryan Bechard – PO Box 89, Mondovi, WI 54755  
Judith Bechard – 3719 W Folsom St, Eau Claire, WI 54703  
Haas Sons – 203 E Birch St., Thorp WI 54771  
Allan Powell – 4208 County Hwy T, Chippewa Falls, WI 54729  
Joel Seidlitz – 4255 County Hwy T, Chippewa Falls, WI 54729  
Murray & Nora Link – 6455 County Hwy X, Chippewa Falls, WI 54729  
Kurt & Carolyn Lofgren – PO Box 331, Stone Lake, WI 54876

#### 5) Topsoil/Soils/Geologic Composition

Topsoil on-site varies, but is approximately 4"-6" in depth on average with subsoil ranging between 6"-8" in depth. This information is based on previous construction activities at the site. The USDA map reports subsurface soils as silt loam and sandy loam materials. Attached is the soils map report from the USDA website (Appendix 1 -Figure 5).

Also attached is a Bedrock Geology of West-Central Wisconsin map published by the Wisconsin Geological and Natural History Survey – University of Wisconsin-Extension (Appendix 1 – Figure 7). Based on on-site exploration, the depth of the mineral deposit is approximately 1-30ft depth.

Included is a table of approximate quantities defined by phase.

APPROXIMATE RESOURCES/PHASE	QUANTITY (cu. Yd.)
Phase 1	140,000
Phase 2	115,000
Phase 3	145,000
Phase 4	250,000
Phase 5	170,000
Phase 6	30,000
Phase 7	90,000

6) Biological, Plant Communities, Wildlife

Wisconsin Wildlife is typical of the area. An Endangered Resources and Cultural Resources Review screening has been completed (see Appendix 4). No impact to cultural or endangered resources is anticipated based on the screening.

Wisconsin Department of Natural Resources wetland inventory maps (Appendix 1- Figure 4) were verified to confirm that no mapped wetlands or wetland indicator soils exist in the non-metallic mining area.

7) Existing Topography

Included are existing conditions maps with 2' contour intervals (Appendix 2 –Site Plans: Sheets C2.0- Existing Site Map). Existing site contours are based on information derived from Lidar Mapping.

8) Man Made Features

Man-made features on the property consist of shop and parking/drive areas.

9) Previously Mined Areas

No areas on the site have been previously mined. However, previous construction for a shop building and parking/drive areas have been completed. This area of construction was approximately 8 acres.

## 10) Mining Sequence

Mining will progress in sequential order starting at Phase 1. Trees along the east side of Phase 1 will be harvested to access the location of Basin B1, which will be excavated to contain runoff from the active mine in Phase 1 & Phase 2. Mining will begin in the southeast corner of Phase 1 and continue north toward Phase 2. Once Phase 1 is completed, mining will progress northerly in Phase 2. Drainage from Phase 2 will be directed into Basin B1. As the mining progresses in each phase, contemporaneous reclamation will occur with the previously mined area (Refer to C. POST MINING LAND USE, 3) Topography - for additional information).

Once Phase 2 is complete, mining will progress north into Phase 3. Basin D1 will be excavated to contain runoff from the active mining in Phase 3, prior to work commencing in Phase 3. Mining will advance north within Phase 3 until complete.

After mining is completed in Phase 3, mining will move west into Phase 4. Basin D2 will be excavated prior to mining activities within Phase 4. Basin D1 may be removed once the drainage area to the Basin has been successfully been reclaimed. Mining in Phase 4 will advance south toward Phase 5.

Once mining in Phase 4 is complete, mining in Phase 5 will begin. Drainage from Phase 5 mining will be directed north to Basin D2 and toward Basin B1 to the southeast.

Once Phase 5 is complete, mining will advance on to Phase 6. Basin D2 may be removed once the drainage area to the Basin has been successfully been reclaimed. Trees will be harvested within Phase 6 prior to mining. Drainage within Phase 6 will be directed to Basin B1. Mining will advance east toward Phase 7.

After mining is completed in Phase 6, mining will progress east into Phase 7. Trees will be harvested within Phase 7, in order to mine the area. Basin A1 will be excavated to

contain runoff from the active mining in Phase 7, prior to work commencing in the northeast Phase 7 drainage area.

### **C. POST MINING LAND USE**

#### **1) Post Reclamation Land Use**

The Post mining land uses for the mine will be Ag Production, Perennial Forage, Conservation Cover with the potential for Medium to High Intensity Commercial Development.

Areas are identified on Sheet C3.0-Reclamation Plan.

#### **2) Topsoil & Subsoil**

Topsoil and subsoil from mining activities will be stripped and stockpiled separately on-site. Stockpiles will be seeded and mulched according to Wisconsin Technical Standards #1058- Mulching for Construction Sites & #1059-Seeding. Topsoil and subsoil will not be removed from the site. The topsoil and subsoil materials will be replaced on the reclaimed areas at similar depths that existed previously. The reclaimed topsoil depths will be approximately 4 to 6 inches and subsoil depths approximately 6 to 8 inches.

#### **3) Topography**

Final slopes and grades will be established with the use of standard excavating equipment. These consist of, but are not limited to, dump trucks, bulldozers, scrapers, and excavators. Once rough grades have been established, subsoil and topsoil will be placed to create final grades for the reclaimed surface.

Contemporaneous reclamation of the site will occur during the mining operations.

Contemporaneous reclamation is defined in NR135.03-NonMetallic Mining Reclamation as “the sequential or progressive reclamation of portions of the nonmetallic mining site

affected by mining operations that is performed in advance of final site reclamation, but which may or may not be final reclamation, performed to minimize the area exposed to erosion, at any one time, by nonmetallic mining activities.”

Mined areas will be reclaimed by first placing overburden material (if any- little to no overburden is anticipated) to establish rough grades. Once rough grades have been established, topsoil will be placed to create final grades for the reclaimed surface.

Slopes will not exceed 3:1 horizontal to vertical. Final contour information for the final reclamation plan is included (Appendix 2 –Site Plans: Sheet C4.0-Reclamation Plan).

#### 4) Final Plan/Map

The final plan for the final reclamation (Appendix 2 –Site Plans: Sheet C4.0-Reclamation Plan) is included.

#### 5) Cost Estimate Reclamation

Contemporaneous reclamation of the site will occur during the mining operations. It is anticipated that since the reclamation and mining operations are taking place concurrently that approximately 5 acres of the site will be disturbed at one time. The reclamation cost per acre is calculated to be \$4,299.94 using the 1989 rate of \$2,000 per acre according to Wisconsin NR340.055(3)(e) and adjusting due to inflation. Based on the Engineering News Record construction index- Minneapolis, the 1989 BCI was 2607.8 and the current index for 2015 (most current available) is 5606.7. Therefore, the current cost per acre for reclamation is  $\$2,000 * (5606.7/2607.8) = \$4,299.94$ . The estimated total cost for reclamation of each 5 acre section is \$21,499.70.

## 6) Revegetation Plan

The site will be seeded to achieve the post mining land use of Perennial Forage, Conservation Cover. A possible seed mix is shown below. Other seed mixtures must be verified with the County prior to seeding.

Common Name	Scientific Name	Percent of Mixture by Weight
Canada Wild Rye	<i>Elymus canadensis</i>	10
Annual Rye Grass	<i>Lolium multiflorum</i>	30
Timothy	<i>Phleum pretense</i>	10
Tall Fescue	<i>Festuca aundinaceae</i>	10
Alsike Clover*	<i>Trifolium hybridum</i>	10
Red Clover	<i>Trifolium repens</i>	10
Alfalfa*	<i>Medicago sativa</i>	10

\*Must be inoculated according to the seed provider's instruction prior to seeding

## 7) Vegetation Standards

The extent of reclamation success for the Conservation Cover Crop will be measured over the term of a prescribed evaluation period. This evaluation period will extend for a period ranging from three (3) to ten(10) years based on the intended post-mining land use, the intended cover type, and the physical characteristics of the mine site.

Reclamation success will be measured periodically throughout the term of the evaluation period using the following evaluation criteria:

1. Site stability
  - a. Slopes no greater than 3H:1V
  - b. No visible erosion (rills, gullies, sluffing, etc.)
2. Plant density and species diversity
  - a. 75% or more are species from the specified seed, 25% or less are weeds, and 2% or less are invasive weeds as measured following standardized methods during and at the end of the established performance period.
  - b. Minimum of 70% ground cover during the growing season.

- c. Attainment of tolerable (sustainable) levels of select noxious weeds and invasive species as measured following standardized methods during and at the end of the growing season.

3. Soil chemistry and fertility

- a. Establishment of a mine soil profile with a target pH to achieve the post mining land use and organic matter greater than 1 percent.

All reclaimed areas will be immediately seeded and stabilized. All disturbed areas will be seeded and mulched according to Wisconsin Technical Standards #1058- Mulching for Construction Sites & #1059-Seeding. Weeds will be controlled by mowing. Manure shall not be spread on the site prior to reclamation certification.

8) Erosion Control Plan/Storm Water

Erosion control measures will include seeding and mulching all disturbed slopes. In addition, silt fence or 12" compost filter sock will be placed downslope of the stockpiles and disturbed areas. Sediment logs will be installed downslope of the stockpiles and disturbed areas where channelized flow is anticipated. All erosion & sediment control measures will be maintained until vegetation is established. Refer to Appendix 2 –Site Plans: Sheets C3.0-General Mining Plan, C4.0-Reclamation and C5.0-Erosion & Sediment Control Details.

A Wisconsin DNR Grading and Storm Water permit is required for this site. The site will be internally drained- see Appendix 2: Site Plans for location of storm water basins and Appendix 5: Storm Water Basin Calculations. Hydrologic computations were performed using HydroCAD to size storm water basins to prevent runoff during the 25-year, 24-hour event (4.87inches). These computations are shown in Appendix 5 – Storm Water Basin Calculations.

9) Long Term Safety

All reclamation of the site will be completed to avoid safety concerns. No slopes of steeper than 3:1 will be created, except during mining activities.

**D. Criteria of Reclamation Plan**

The criteria for verifying reclamation shall be the final reclamation plan as shown in the plan set. Established vegetation shall be by means of inspection by Chippewa County staff upon request for verification by operator. Request shall be made within 6 months of reclamation of an individual phase. Acceptance of reclamation is at the discretion of Chippewa County based on state and county standards.

**E. Certification of Reclamation Plan and Financial Assurance.**

Certification of Reclamation & Financial Assurance is the signature page in Appendix 3 – Certification of Reclamation Plan & Financial Assurance.

**F. Existing Plans/Approval**

Site plan approval has previously been approved for this site for the shop and associated uses.