

NON-METALLIC MINING RECLAMATION PLAN NARRATIVE

Operator: Haas Sons, Inc.
203 E birch St
Thorp, WI 54771
Contact: Jason Haas
715-829-8929
jason@haas4.com

Date: 5/14/2019

Owner: Haas Sons Properties

Maintenance Contact: Jason Haas

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Summary

This reclamation plan has been developed to provide information about the existing site of the proposed mine, the proposed site operations, and how the mine will be reclaimed to the proposed post mining land use.

This reclamation plan is for a 10-acre expansion of an existing 44-acre gravel pit located on 230th St, approximately 4 ½ miles north of State Hwy 29, in Chippewa County. The operator will mine a sand and gravel deposit that is located on a glacial outwash which is characterized as the melt water stream sediment from the Chippewa Lobe. Some of the site will be mined below the water table and reclaimed as a wildlife pond. Shore land areas surrounding the pond that are mined above the water table will be seeded for a Grassland/Prairie post mining land use.

Wetlands exist near the proposed site. A wetland delineation will be performed prior to beginning mining operations for Phase 2 (the expanded Area). All mining activities will occur on upland areas.

Initial site plan

This section is to be used with the initial site map

1. **Soil Information**

A horizon – 6” of topsoil

B horizon – 24”-30” clay subsoil

Source of information: We dug test holes with a backhoe to determine the soil horizons. We found that there is approximately 6" of topsoil and 30" on average, of subsoil at the site. See attached soils test hole map.

There are no known utilities at this site.

2. **Legal Description:** Mining will occur on the following parcels:
22907-1513-00000000, 22907-1512-04500000, 22907-1521-02500000, and 22907-1524-00000000
3. **Parties of Interest:** Ronald Patrie- 10199 County Hwy K, Cadott WI, 54727, Haas Sons Properties- 203 E Birch st, thorp Wi 54771, Travis Skattebo- 22479 108th Ave, Cadott WI 54727, Christopher P and Donna J Elstran- 22611 108th Ave, Cadott WI 54724, Craig and Holli Sande- 10774 230th St, Cadott WI 54724, Robert R Patrie- 10614 230th st, Cadott WI 54724

4. **Description of Materials to be extracted**
Sand and gravel will be extracted and processed at the site.

5. **Extraction and processing to be conducted at the Site**
Sand and gravel will be mined crushed, washed and then removed from the site. **Material below the water table will be extracted by way of dredging.** A portable crushing plant will be used to process the material and stockpile it on site. Materials within the mine will be excavated and transported using bulldozers, excavators, loaders and conveyers.

Sand and gravel will be excavated from the mine above the water table in one lift approx. 10-15 feet deep. An area in the floor of the mine will be excavated below the water table to create a pond from 0 to approximately 10 ft deep. No high capacity wells will be installed or used to support sand and gravel processing.

No flocculants or other chemicals will be used to support sand and gravel processing. No waste materials that are generated off-site will be hauled to the mine, stockpiled or used in site reclamation.

6. **Volumes of Materials**
Sequences of mine phases are planned to systematically mine and reclaim the site. The anticipated area of disturbance and estimated volume of raw materials to be removed during the life of the mine is as follows.

(Estimated Cubic Yards of Raw Material)

Phase	Area (acre), includes berms, roads, etc.	During 1 st two years	During Full Life of Operation
1	28.8 Acres	80,000 cubic yards	921,600 cubic yards

2	8.7 Acres	0	278,400 cubic yards
3	4.23 Acres	0	135568 cubic yards

When Hauling from the site to jobs, the estimated truckloads per day will average approximately 10 loads per day. This average is taking into consideration that some days there will be no loads hauled and some days there will be many. The average weight of each truck is around 73,000 lbs when fully loaded. This is the legal weight limit for a quad axle dump truck.

All equipment used for mining operations are constructed and will be operated to minimize dust, noise, lighting, vibration, and to be in compliance with MSHA. All trucks will follow an anti-idling plan.

7. Storm water Permits/Management

At a minimum storm water will be contained within the mine boundaries for all rainfall events according to the 25year 24hour frequency storm (4.86 inches).

Soil berms created during topsoil and subsoil stripping will be stabilized and used to contain and direct storm water runoff towards the excavated floor of the mine where it will infiltrate. Storm water will be managed this way over the entire life of the mine. A notice of intent will be sent to the DNR

Site operations

This section should be used with the site operations map

8. Erosion Control & Permits

Silt fence will be installed around topsoil pile and berms during site operation. All topsoil and subsoil piles will be graded to a slope of 3:1 or flatter and seeded to further control erosion during site operation.

Berms will be stabilized using best management practices including seeding, mulching, erosion control mat, hydro-seeding, etc. Erosion and sediment control best management practices will be installed as determined by the Wisconsin Erosion Control Product Acceptability List (PAL) Channel and Slope Erosion Control Matrices.

9. Reclamation Activities During Operations

A process of contemporaneous reclamation will be used to systematically mine and reclaim the site. Under this process the site will be reclaimed as soon as possible after materials have been extracted and processed using the planned sequence.

At the beginning of the mining operations all of the topsoil (estimated 6 inches) will be stripped and stockpiled in a pile, and some in temporary berms. Following topsoil stripping operations, all of the subsoil (estimated 20 inches) will be stripped and mostly stockpiled in the topsoil area. After subsoil is piled, and sloped, some topsoil will be applied and area will be seeded.

All berms that are not to be disturbed within 2 years of construction, will be shaped to a 3:1 slope or flatter and seeded with DOT Seed Mix 20. Temporary berms (berms that will be moved within two years of construction) will be seeded with an annual stability seed mix such as rye, or clover. Berms will be managed to prevent the growth of weeds and invasive species using best management practices, including selective herbicide application. Mining operations will then excavate, process, and remove sand and gravel from the site.

Material extraction and processing will begin in Phase 1 and move from the east to west, in 5 to 10-acre sections. When mining is done through phase 1, east banks will be sloped and seeded. Next mining will move through phase 2 from south to North then from East to West, above the water table. After the mining is done above the water table, mining will begin below the water table starting on the West end and mining East to the phase 2 boundary. When mining in phase 2 is complete, the North, East, West banks will be sloped and seeded.

Mining will continue in Phase 1 below the water from North to South. After mining is completed in Phase 1, the East, South, and West banks will be sloped and seeded.

Finally, Phase 3 will be mined from west to east, above the water table, then mined from west to east again, below the water table. Bottoms of the pond areas will not be graded to promote uneven areas in the pond for plant and wildlife protection.

When excavation of sand and gravel is completed, grading work will be performed to finish remaining slopes around the perimeter of the mine that are 3:1 or flatter and extend below the surface of the water. Subsoil will then be place over the slopes (this includes a minimum of 2 feet vertically below the water line) and flat lying areas of mine to a uniform depth.

Topsoil will then be placed over the subsoil to a uniform depth

The site will then be seeded. Areas with slopes flatter than 3:1 will not receive mulch, unless it is determined that mulch is needed for stabilization.

Reclamation test plots will be established within the first two years of mining. Test plots will be established for each post mining land use. These test plots will be monitored and used to help determine success in future areas of mine reclamation.

10. Timetable/Sequence of Operations

Location

Activity

Phase 1	Start mining at the south end of the site operations map. We will mine north through the east half of the pit evenly, at an elevation above groundwater (approx. 967) to the north boundary, then we will mine from east to west above the water table to the west boundary.
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- Phase 2 Start mining at the north end of phase 1. We will mine north and east through the pit evenly, at an elevation above groundwater (approx. 967) to the west boundary.
After mining above water table is complete, we will dig a pond approx. 10ft to 15ft deep starting at the west end and moving east, until we reach the east boundary of the phase.
- Phase 1 Start mining at the north end of the phase 1 below the water table. We will mine South through the phase evenly, at an elevation below groundwater (approx. 960) to the south boundary.
- Phase 3 Start mining at the West end of the phase. We will mine east Above the water table until we reach the east bank, then we will mine below the water table, from west to east until there is no more material left in the mine.
Then final restoration will begin.

Estimated period of operation/extraction:

Phase 1	5 years
Phase 2	2 years
Phase 1	5 years
Phase 3	5 years
Pit	17 years

(C) Site Reclamation

11. Disposition of Structures and Roads

An existing crushed gravel driveway comes west off of 230th street. It is located approximately 1 ½ miles north of the intersection where county XX ends. It is approximately 1500 ft long, and 30 ft wide. This driveway will provide access to the reclaimed site and to the wildlife pond.

Structures such as a scale house, and scale will be removed prior to final reclamation. The pond created will remain in place as shown on the Final Site Map (See Maps). There are no areas of concentrated flow entering, leaving, or within the reclaimed mine site.

12. Soil Reapplication

Overburden piles will be leveled off or used on slopes and pit floor. This work will be done with scrapers or bulldozers. Slopes will be stabilized using best

management practices including seeding, mulching, erosion control mat, hydro-seeding, etc. Erosion and sediment control best management practices will be installed as determined by the Wisconsin Erosion Control Product Acceptability List (PAL) Channel and Slope Erosion Control Matrices (attached).

Subsoil material will then be removed from the berms with excavators or loaders and transported in dump trucks to the area in the mine to be reclaimed. Trucks will be routed to limit traffic over areas where subsoil has already been applied. Trucks will dump subsoil and bulldozers will spread the material to be 24 inches thick on the slopes and floor of the mine. The use of tracked equipment while spreading subsoil will limit soil compaction.

Topsoil material will then be removed from the berms with excavators or loaders and transported in dump trucks to the area in the mine to be reclaimed. Trucks will be routed to limit traffic over areas where subsoil or topsoil has already been applied. Trucks will dump topsoil and bulldozers will spread the material to be a uniform thickness on all surfaces above the water table, and two feet vertically below the water table. The use of tracked equipment while spreading topsoil will limit soil compaction.

In the event that rubber tire equipment cannot be routed to prevent subsoil and topsoil compaction deep tillage equipment will be used to alleviate compaction in the upper 12 to 14 inches of the soil profile.

Soils testing will be performed following procedures established in the Wisconsin Nutrient Management Standard 590 to determine the organic matter, phosphorus, potassium and PH. Soil amendments (including lime and fertilizer) will be applied based on the soil test results to meet the fertility requirements needed to achieve the intended post mining land use.

13. Safety Assurances

Given the slopes on the reclaimed mine site and the post mining land uses there are very limited safety concerns. The pond will have a 3:1 slope that extends 6 feet below the water line. Areas reclaimed as Wildlife habitat will have 3:1 slopes.

14. Seeding Plan

Seeding will be selected to achieve the post mining land use that is planned for each designated area. Areas that will be reclaimed to wildlife habitat will be seeded to native grasses. Seed will be broadcast seeded and rolled to improve seed – soil contact. DNR Seed Mix 2 will be used in these areas and applied at the rates listed (see attached). The wildlife pond area will be allowed to vegetate below the water line using natural seed distribution without seeding by the operator.

The areas above the water table will be seeded as grassland prairie, using seeders designed for handling native prairie seeds and planting them evenly and

efficiently. Prairie seeding shall take place between February 15 and June 15 or between September 15 and December 15.

Once seeded, all areas will be monitored and sprayed with selective herbicide at a minimum 2 times in the first 2 years to help with weed prevention. The site may also be mowed, if needed, to further prevent invasive species.

15. Future Use

The mine site will be reclaimed to establish a post mining land use as wildlife pond habitat below the water table, and grassland/prairie above the water table, as shown on the Final Site Map.

Wildlife Pond Habitat Post Mining Land Use

Areas of the mine that are below the water table will be reclaimed as a Wildlife Pond.

The proposed performance measures used to determine reclamation success are:

- a. The establishment of a mine soil profile with a minimum of 6 inches of topsoil and 24 inches of subsoil.
- b. The establishment of full plant rooting depth.
- c. The establishment of target soil chemistry and fertility to achieve and sustain the post mining land use.
- d. The establishment of the shore land seeding so that:
 - i. All species in the seeding are present.
 - ii. No more than 50% of the total vegetation is one species from the seed mix.
 - iii. Biomass shall be a minimum of one ton per acre per year.
- e. The establishment of irregular shorelines that vary in shape and slope.
- f. The establishment of shoreline slopes that vary from 3:1 to 10:1 and extend a minimum of 6 feet vertically below the water line.
- g. The establishment of a minimum of 6 inches of topsoil placed along the shoreline and on the slope a minimum of two feet vertically below the water line to encourage vegetative growth.

Site monitoring will be conducted to assess the success of vegetation establishment and monitor the site for invasive or noxious plant species. Areas of poor vegetation establishment shall be examined to determine the cause. Invasive or noxious species will be spot treated with herbicide according to the product label or hand removal and disposed of properly.

Land or lease documentation

State Bar of Wisconsin Form 3-2003
QUIT CLAIM DEED

Recorded
December 13, 2011 11:51 AM

Marge L. Geissler

MARGE L. GEISLER
REGISTER OF DEEDS
CHIPPEWA COUNTY, WI
Fee Amount: \$30.00
Transfer Fee \$1,140.00
Total Pages 2



Document Number

Document Name

THIS DEED, made between Dean L. Moats and Marsha L. Moats
husband and wife
("Grantor," whether one or more),
and Haas Sons Properties LLC
("Grantee," whether one or more).

Grantor quit claims to Grantee the following described real estate, together with the rents, profits, fixtures and other appurtenant interests, in Chippewa County, State of Wisconsin ("Property") (if more space is needed, please attach addendum):

Recording Area

Name and Return Address

DEAN MARSHA MOATS
22479 10942 AV
CADOTT, WI 54727

22907-1521-02500000 22907-1513-00000000 22907-1523-00000000

Parcel Identification Number (PIN)

22907-1524-00000000 22907-1522-04500000
22907-1512-04500000

This is homestead property.
(is) (is not)

Dated 12-13-12

Marsha L Moats (SEAL) *Dean L Moats* (SEAL)
* Marsha L Moats * DEAN L MOATS
____ (SEAL) _____ (SEAL)
* _____ *

AUTHENTICATION

ACKNOWLEDGMENT

Signature(s) _____
authenticated on _____

STATE OF WISCONSIN)
Chippewa COUNTY) ss.

Personally came before me on December 13, 2011
the above-named Marsha & Dean Moats

to me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

Diane M. Finch
* Diane M. Finch
Notary Public, State of Wisconsin
My Commission (is permanent) (expires: 1-27-15)

*
TITLE: MEMBER STATE BAR OF WISCONSIN
(If not, _____
authorized by Wis. Stat. § 706.06)

THIS INSTRUMENT DRAFTED BY:
DEAN L MOATS

(Signatures may be authenticated or acknowledged. Both are not necessary.)

NOTE: THIS IS A STANDARD FORM. ANY MODIFICATIONS TO THIS FORM SHOULD BE CLEARLY IDENTIFIED.

QUIT CLAIM DEED

© 2003 STATE BAR OF WISCONSIN

FORM NO. 3-2003

* Type name below signatures.

DOCUMENT# 802663

To the following described real estate situated in Chippewa County, Wisconsin:

X The North West quarter of the North East
quarter, South West quarter of the North East
quarter, North East quarter of the North West
quarter, X South East quarter of the North West
quarter, X North East quarter of the South West
quarter, and the North West quarter of the
South East quarter, all in Section 15, of
Township 29 North of Range 7 West.

That part of the West Half ($W\frac{1}{2}$) of the Northwest Quarter ($NW\frac{1}{4}$) of Section Fifteen (15), Township Twenty-nine (29) North, of Range Seven (7) West, which lies South of the town road (which town road is now known as Lake Road).

Subject to easements of record, if any, existing highways and all applicable zoning ordinances; and also subject to the 1989 real estate taxes, which the grantees expressly assume and agree to pay as part of the consideration for this deed.

22907-1523-00000000
22907-1522-04500000

The West 20 Rods of the Northwest Quarter ($NW-1/4$) of the Northeast Quarter ($NE-1/4$) of Section Fifteen (15), Township Twenty-nine (29) North, of Range Seven (7) West, lying South of Lake Road, except the North 64 rods thereof.

22907-1512-00000000

conveys to Grantee the following described real estate in CHIPPWA County, State of Wisconsin: The Northeast quarter ($NE\frac{1}{4}$) of the Northwest quarter ($NW\frac{1}{4}$) excepting there from that portion North of the center of the public highway running East and West through the same and all of the Southeast quarter ($SE\frac{1}{4}$) of the Northwest quarter ($NW\frac{1}{4}$) and a portion of the Northwest quarter ($NW\frac{1}{4}$) of the Northeast quarter ($NE\frac{1}{4}$) South of the highway running there through described as follows: Commencing on the center of the highway and on the dividing line between the Northeast quarter ($NE\frac{1}{4}$) of the Northwest quarter ($NW\frac{1}{4}$) and the Northwest quarter ($NW\frac{1}{4}$) of the Northeast quarter ($NE\frac{1}{4}$), thence along the center of said highway 20 rods; thence due South 64 rods; thence due West 20 rods; thence due North 64 rods to the place of beginning; all being in Section Fifteen (15), Township Twenty-nine (29) North, Range Seven (7) West.

Tax Key No.

Except easements, reservations, restrictions and zoning ordinances of record.

22907-1521-02500000
22907-1524-00000000

The South West Quarter ($SW\frac{1}{4}$) of the North East Quarter ($NE\frac{1}{4}$) of Section 15, Township 29 North, Range 7 West.

22907-1513-00000000

HAAS SONS, INC.

Redi-Mix Concrete • Underground Utilities
Street & Road Construction • Excavation • Aggregates

May 8, 2013

Robert Patrie
21868 100th Ave
Jim Falls, WI 54748

RE: Pit Road agreement

This agreement is made between Robert and Melissa Patrie, whose address is ~~21868~~ ^{10614 230th St.} ~~100th Ave, Jim Falls, WI 54748~~ ^{Cadott} and Haas Sons Properties, LLC whose office is located at 203 E. ^{WI 54727} Birch St., Thorp, WI 54771.

It is mutually agreed that Robert and Melissa Patrie grant permission to Haas Sons Properties, LLC for access to and use of, the existing pit road leading to 290th Ave which originates in the former Dean Moats property, presently owned by Haas Sons Properties, LLC. This agreement will be for the life of the gravel pit located on the property; legal description of SW ¼ of the NE ¼ and SE ¼ of the NW ¼ of Section 15, T29N, R07W, Township of Goetz, Chippewa County. In exchange for said access and use, Haas Sons Properties, LLC grants exclusive hunting rights on the above described property to Robert and Melissa Patrie for the life of the gravel pit located on that property.

Signed this 15 day of May, 2013.

Robert Patrie
Robert Patrie

Melissa Patrie
Melissa Patrie

Philip Haas
Philip Haas
Haas Sons Properties, LLC