m/045/003

DOGM MINERALS PROGRAM FILE COPY

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Marblehead Lime Company
A General Dynamics Company

June 4, 1990

RECEIVED
JUN 11 1990
DIVISION OF
OIL, GAS & MINING

Mr. Howard Hedrick
U. S. Department of the Interior
Bureau of Land Management
Salt Lake District Office
2370 South 2300 West
Salt Lake City, Utah 84119

Dear Mr. Hedrick:

In response to your letter of May 15, 1990, regarding necessary reclamation work on our Jennette mining claims in T.1N., R.8W., Sections 5 and 6, the following explanation is put forth.

In late October, 1989, under our Mine and Reclamation Permit with the State of Utah, D.O.G.M., Marblehead Lime Company instituted a number of revegetation test plots near our dolomitic quarry T.2N., R.9W., Section 22. Over the next five (5) years, these sites will be monitored to determine growth and growth rate. The information gathered would then be used as the basis for all future reclamation work.

We also, over the last 6 months, have been negotiating with some parties who are interested in utilizing the High Calcium limestone on these mining claims. In talking with our upper management people, these parties are still interested, but it may take another year to work out all the details.

For these reasons, reclamation work has been done on the drill pad locations and on roads leading to drill pads. The necessary reclamation work was planned for after the information on the test plots was collected and after we knew whether or not we would be opening up this area further. Upon completion of the time period stated above, Marblehead will finish the required reclamation work in accordance with 43 CFR 3809.1-3 and per your recommendations. During the above mentioned time period, we also respectfully request a postponement in doing the required reclamation work.

In your letter of May 15, you stated - "Enclosed is the recommended seed mixture and application description.". This was not received. At your convenience, could you please forward this seed list to my attention so that the availability of the seed mixture can be determined.

If additional information is required, please feel free to contact me at the above address at any time.

Sincerely yours,

MARBLEHEAD LIME COMPANY

Philip N. Raines

Philip N. Raines
Asst. to Vice President of Operations

PNR/bb

cc: M. D. Henery (President, Marblehead Lime Company)
E. J. Penman (Vice President - Operations, Marblehead Lime Co.)
Wayne Hedberg, Division of Oil, Gas & Mining

ATTACHMENT "B"

VEGETATIVE TEST PLOTS
MARBLEHEAD LIME COMPANY

Methodology

On October 24, and 25, 1989, E.I.S., using a crew of 4 men and 1 Bowie 500 hydroseeder implemented the following:

An area was selected immediately below the mine quarry road adjacent to the furthest most quarry site. This area was previously undisturbed. Approximately 1' of top soil was removed and stock piled above the test plot site. This material was utilized as a berm to preclude road and slope drainage from adversely impacting the test plots. Mine tailings were then hauled from the adjacent quarry site and spread to a depth of 12" over the entire area that top soil had been removed. In order to minimize compaction, the entire area was then ripped prior to seeding, mulching etc. (See Figure 1 - Location Map).

The area of 65' X 163' was fenced utilized 6' metal posts on 10' centers with 2 strands of barbed wire. The intent of the fence was to preclude domestic grazing and incidental trespass by heavy equipment which work in the adjacent areas.

Within this enclosure, 5 individual test plots were delineated on the ground with wooden stakes at each corner, and a descriptive stake in the center of each plot identifying the individual treatment. Each 1,050 sq. ft. plot was 25' by 42' (approximately .023 acres). In addition, at the northern end of the enclosure,

8 strips 3' by 6' were laid out to plant each of the 12 species utilized in the seed mix. (See Figure 2).

Two different fertilizer treatments were recommended for comparison; the BLM's recommended fertilizer 10-20-10 at 24 lbs. per plot, and a UDOGM recommended fertilizer 40-0-30 at 6 lbs. per plot. NH_4SO_4 was used to help mitigate the high sodium content of the soil Neither fertilizer is commercially available in the required ratios. Intermountain Farmers Association was Contracted to special mix 50 lbs. of each. Wood fiber mulch was utilized at 2,000 lbs. per acre and was applied in a uniform lay utilizing the hydroseeder. Seed and fertilizer were weighed so that it was applied at a rate of 14 lbs. of seed per acre and 100 lbs. of available fertilizer per acre. The application was by Cyclone Hand Seeders.

The southern most plot 1 was utilized as a control. Seed was raked in to lightly cover, but received no fertilizer or mulch. Plot 2 received raked seed and 40-0-30 fertilizer. Plot 3 raked seed, 10-20-10 fertilizer. Plot 4 received raked seed, 40-0-30 fertilizer and 2,000 lbs. per acre wood fiber mulch. Plot 5 received raked seed and 10-20-10 fertilizer and 2,000 lbs. per acre wood fiber mulch.

The following seed mix was utilized:

Species	lbs. Pure Live Seed/Acre
Bluebunch Wheatgrass	2
Thickspike Wheatgrass	2
Galleta Grass	2
Indian Ricegrass	2
Desert Globemallow	1
Yellow Sweetclover	1
Winterfat	2
Four-Wing Saltbush	2
Hard Fescue	2
Shadscale	2
	18 Total

In addition, High Crest and Ephraim Crested Wheat grass were added at a rate of 2 lbs. per acre on the control plot and added to the strip planting.

FIGURE 1

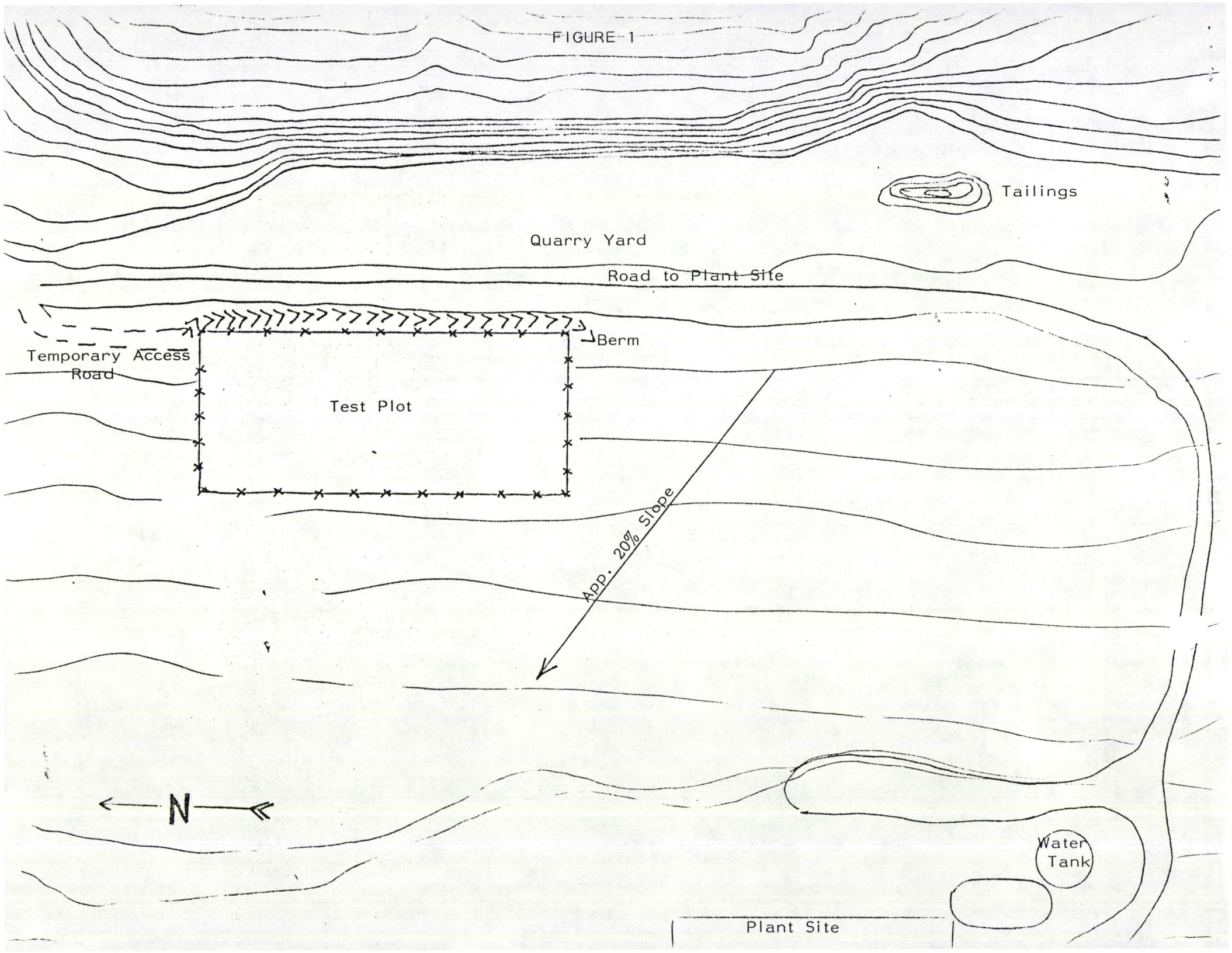
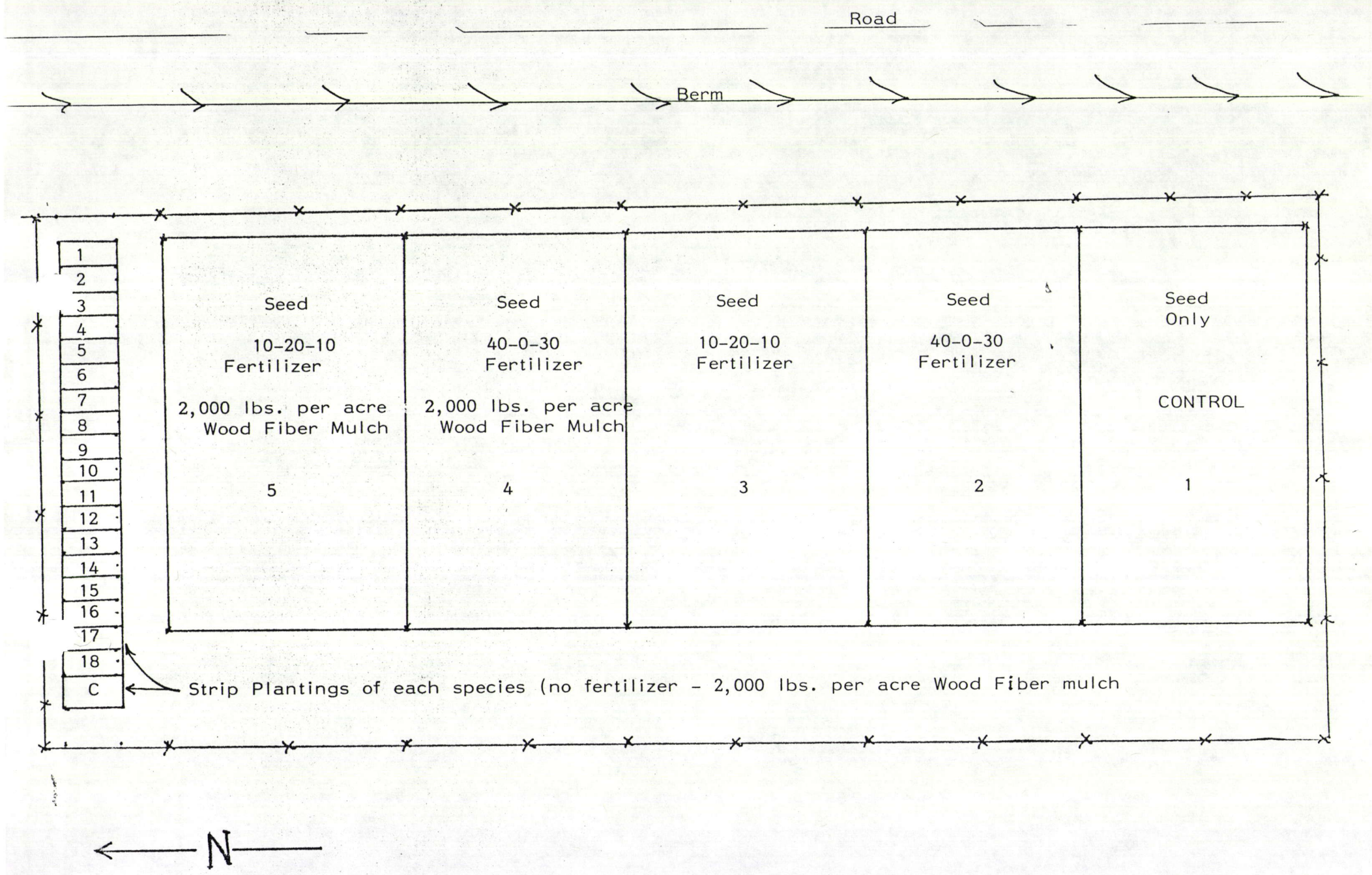

Tailings
Quarry Yard
Road to Plant Site
Berm
Temporary Access Road
Test Plot
App. 20% Slope
N
Water Tank
Plant Site

FIGURE 2


Road
Berm
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
C
Seed
10-20-10
Fertilizer
2,000 lbs. per acre
Wood Fiber Mulch
5
Seed
40-0-30
Fertilizer
2,000 lbs. per acre
Wood Fiber Mulch
4
Seed
10-20-10
Fertilizer
3
Seed
40-0-30
Fertilizer
2
Seed
Only
CONTROL
1
Strip Plantings of each species (no fertilizer - 2,000 lbs. per acre Wood Fiber mulch
N