

0037

**KAISER
STEEL**

KAISER STEEL CORPORATION
RATON COAL PROPERTIES ■ P. O. BOX 1107
RATON, NEW MEXICO 87740 ■ (505) 445-5531

July 28, 1983

Mr. Steve Cox
Reclamation Biologist
Division of Oil, Gas and Mining
4142 State Office Building
Salt Lake City, Utah 84114

RE: Sunnyside Underground Mine proposed revegetation test plots

Dear Mr. Cox,

I have included a copy of the experimental design we discussed for the Sunnyside revegetation test plots. The objectives of the study are to determine how coarse refuse can be successfully revegetated. The test plots will demonstrate whether borrow material is necessary to cover the refuse and at what depth it would be effective. The use of lime will also be tested to determine its effectiveness in countering the acidity problem found in weathered refuse. The list of species we wish to test has also been finalized and has been included. If there are any questions on the design or the species listed please give me a call. We would appreciate a letter of confirmation if you find this design acceptable.

Sincerely,

Marcia H. Wolfe

Marcia H. Wolfe

Reclamation engineer/ecologist

cc: Doug Pearce

Enclosures

MHW/lb

RECEIVED
AUG 01 1983

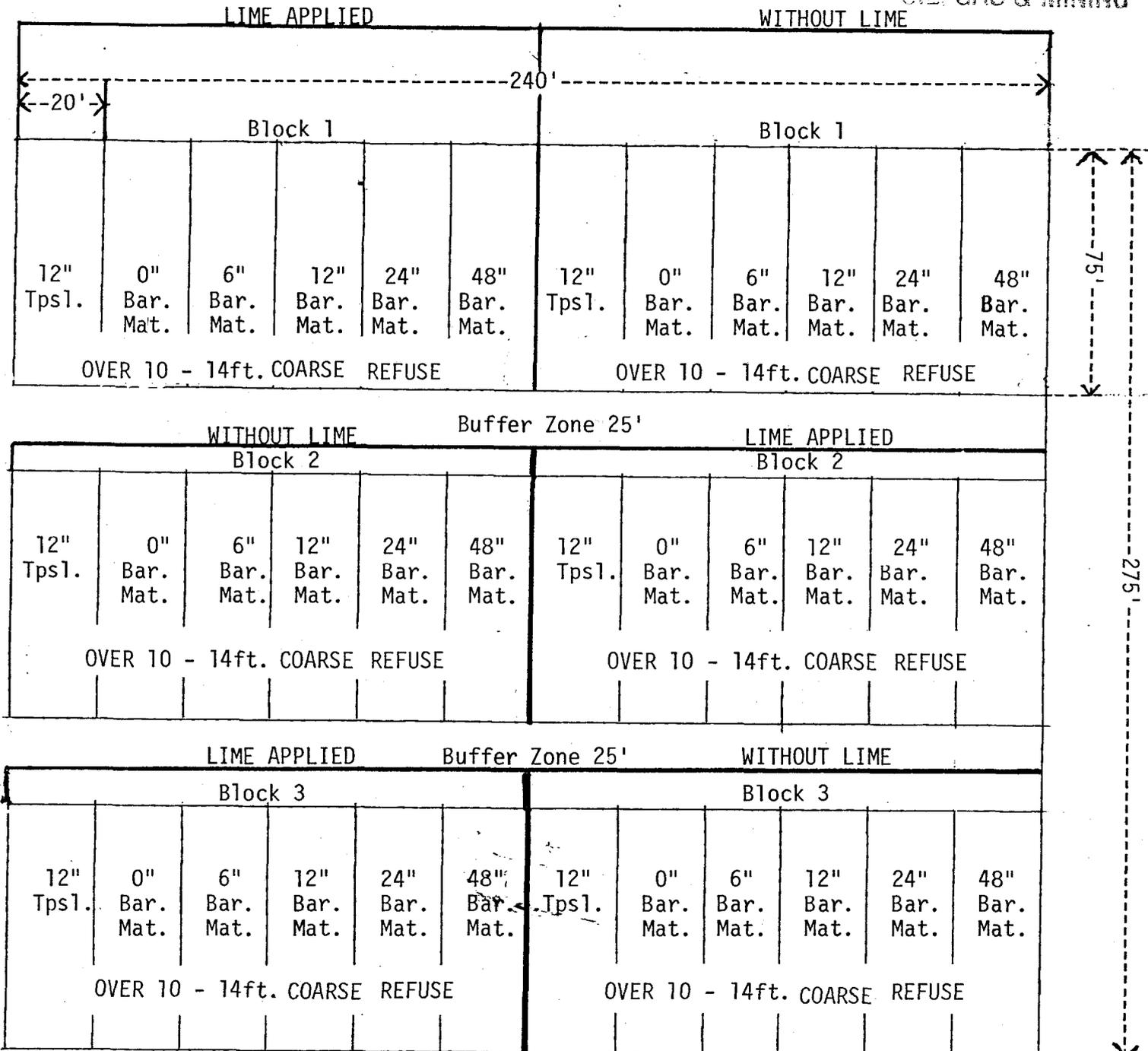
**DIVISION OF
OIL, GAS & MINING**



SUNNYSIDE EXPERIMENTAL REVEGETATION PLOTS

RECEIVED
AUG 01 1983

DIVISION OF
OIL, GAS & MINING



Exact amount of refuse under a plot can be determined by subtracting the depth of the cover material from 14 ft.

Key

- Bar. Mat. - Barrow Material
- Tpsl. - Topsoil

SUNNYSIDE EXPERIMENTAL REVEGETATION PLOTS

List of proposed species to be tested in plots

<u>Grasses</u>	<u>Variety</u>	<u>Common name</u>
<u>Agropyron smithii</u>	'Arriba'	western wheatgrass
<u>Agropyron spicatum</u>		bluebunch wheatgrass
<u>Bromus marginatus</u>	'Bromar'	mountain brome
<u>Elymus giganteus</u>	'Volga'	mammoth wildrye
<u>Elymus salina</u>		salina wildrye
<u>Festuca megalura</u>		zorro fescue
<u>Oryzopsis hymenoides</u>	'Nezpar'	Indian ricegrass
<u>Poa pratensis</u>		Kentucky bluegrass
<u>Poa secunda</u>		Sandberg bluegrass
<u>Stipa comata</u>		needleandthread grass
<u>Forbs</u>		
<u>Balsamorhiza sagittata</u>		arrowleaf sagittata
<u>Artemisia ludoviciana</u>		Louisiana sagewort
<u>Hedysarum boreale</u>		Utah sweetvetch
<u>Oenothera hookeri</u>		Hooker eveningprimrose
<u>Shrubs</u>		
<u>Artemisia nova</u>		black sagebrush
<u>Atriplex canescens</u>		fourwing saltbush
<u>Purshia tridentata</u>		Antelope bitterbrush
<u>Trees (containerized Stock)</u>		
<u>Juniperus osteosperma</u>		Utah juniper
<u>Pinus edulis</u>		pinyon pine

Grasses will be seeded in one foot row spacings, while shrubs and trees will have two foot spacings. The plots will have rows 70 feet long and two grass species will be seeded in each row, with each species occupying 35 feet of the row. There will be a 2½ foot buffer at each end of the row. The shrubs and trees will be seeded one species per row.

RECEIVED

AUG 01 1983

DIVISION OF
OIL, GAS & MINING