



**MT. NEBO SCIENTIFIC**  
research and consulting

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April 17, 1991

Daron Haddock, Permit Supervisor  
State of Utah, Department of Natural Resources  
Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84108-1203

**RECEIVED**

APR 22 1991

**DIVISION OF  
OIL GAS & MINING**

Dear Mr. Haddock:

Some time ago I asked Lynn Kunzler to send me a brief summary concerning preliminary results from the first Surface Facility Reclamation Test Plot at the Wellington Preparation Plant, including some justifications (or his opinions) for planting single species in the new plot. I told Lynn that I would send to him the "as-built" plans for the newly implemented test plot on the site. This was about the time he was getting ready to leave DOGM. I never did receive the information that I requested, but I thought that you may want the "as-built" plot designs for your files. I have included this information.

If you happen to have the information that I requested from Lynn in your files, I would sure like to have a copy of them. Thanks.

Sincerely,

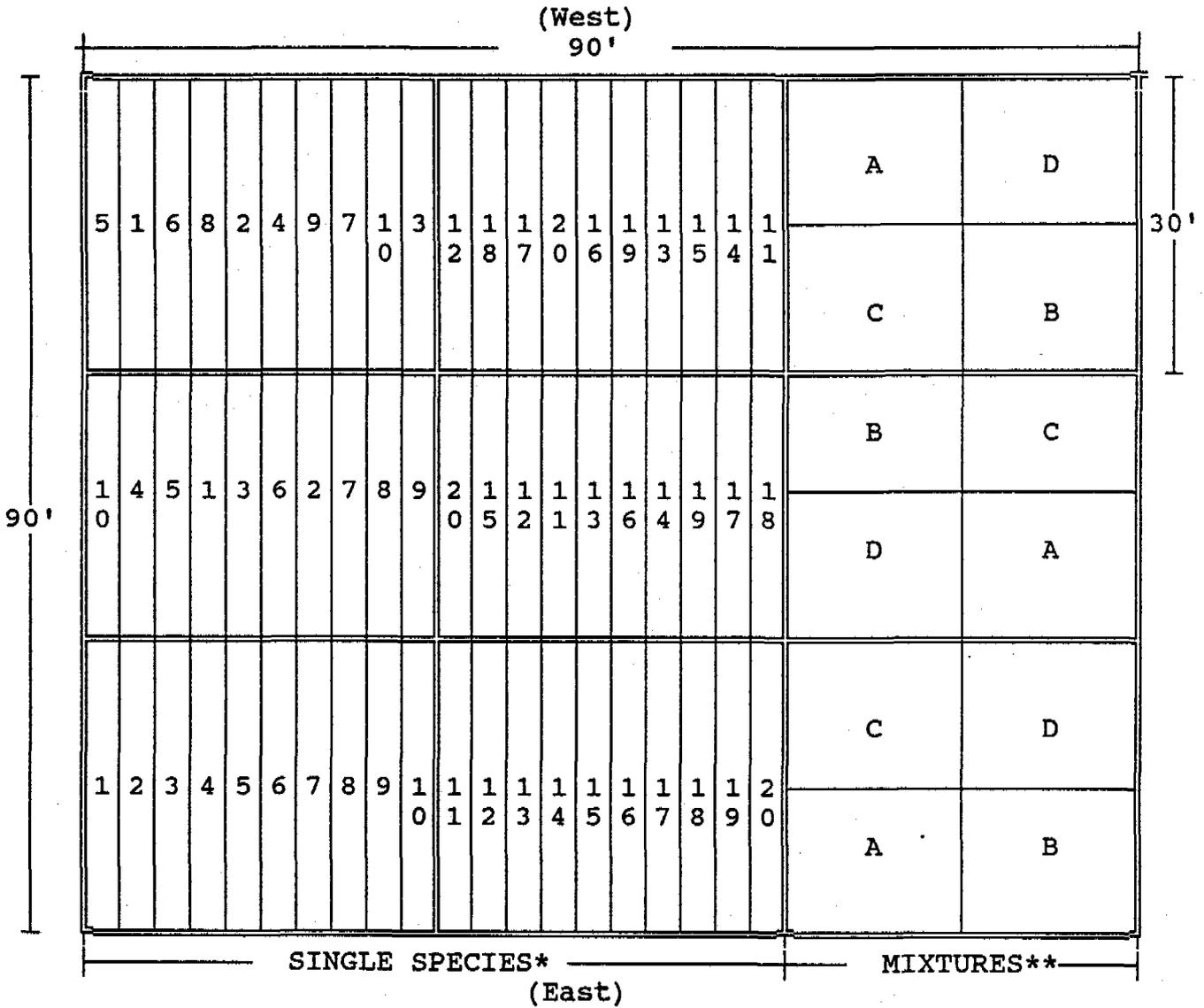
Patrick D. Collins

Enclosures

cc: Jon Passic  
Candy Manzanares

**"AS-BUILT"  
SURFACE FACILITY RECLAMATION TEST PLOTS: II  
WELLINGTON PREPARATION PLANT**

**MT. NEBO SCIENTIFIC  
December 1990**



\* For species planted, refer to corresponding numbers on page 2.  
 \*\* For species in mixtures A - D, refer to pages 3 - 6.

**ADDITIONAL NOTES:**

- o All seeding was calculated @ 60 PLS/ft<sup>2</sup>.
- o Seed was broadcasted and raked.
- o Entire plot was hydromulched.
- o Plot fertilized @ 80 lb/ac nitrogen; 160 lb/ac phosphorus.
- o Plot was fenced 8' high and buried to depth of 8".
- o Plot was gouged 18" wide X 25" long X 5" deep.

**SURFACE FACILITY RECLAMATION TEST PLOTS  
WELLINGTON PREPARATION PLANT**

SINGLE SPECIES PLANTED

SCIENTIFIC NAME

COMMON NAME

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Grasses

1 = Elymus hispidus	Intermediate Wheatgrass
2 = Elymus smithii	Western Wheatgrass
3 = Elymus trachycaulus	Slender Wheatgrass
4 = Boutelous gracilis	Blue Grama
5 = Elymus cinereus	Gt. Basin Wildrye
6 = Hilaria jamesii	Galleta
7 = Stipa hymenoides	Indian Ricegrass
8 = Sitanion hystrix	Squirrelltail
9 = Sporobolus airoides	Alkali Sacaton
10 = Sporobolus cryptandrus	Sand Dropseed

Forbs

11 = Achillea millefolium	Yarrow
12 = Aster chilensis	Pacific Aster
13 = Asclepias speciosa	Milkweed
14 = Helianthus annuus	Sunflower
15 = Medicago sativa	Alfalfa
16 = Melilotus officinalis	Yellow Sweetclover
17 = Penstemon eatonii	Eaton's Penstemon
18 = Penstemon palmeri	Palmer Penstemon
19 = Linum lewsi	Lewis Flax
20 = Sphaeralcea grossulariaefolia	Globemallow

**SURFACE FACILITY RECLAMATION TEST PLOTS  
WELLINGTON PREPARATION PLANT**

MIXTURES PLANTED

Species Mix A

SCIENTIFIC NAME

COMMON NAME

GRASSES

Elymus smithii	Western Wheatgrass
Elymus trachycaulus	Slender Wheatgrass
Elymus cinereus	Gt. Basin Wildrye
Stipa hymenoides	Indian Ricegrass
Sporobolus airoides	Alkali Sacaton

FORBS

Achillea millefolium	Yarrow
Aster chilensis	Pacific Aster
Helianthus annua	Sunflower
Medicago sativa	Alfalfa
Penstemon palmeri	Palmer's Penstemon

SHRUBS

Artemisia tridentata wyo.	Wyoming Big Sagebrush
Atriplex gardneri	Gardner's Saltbush
Atriplex canescens	Four-winged Saltbush
Ceratoides lanata	Winterfat
Chrysothamnus nauseosus	Rubber Rabbitbrush

**SURFACE FACILITY RECLAMATION TEST PLOTS  
WELLINGTON PREPARATION PLANT**

**MIXTURES PLANTED**

**Species Mix B**

<b>SCIENTIFIC NAME</b>	<b>COMMON NAME</b>
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<b>GRASSES</b>	
Elymus hispidus	Intermediate Wheatgrass
Bouteloua gracilis	Blue Grama
Sitanion hystrix	Squirreltail
Sporobolus airoides	Alkali Sacaton
<b>FORBS</b>	
Asclepia speciosus	Milkweed
Linum lewsi	Lewis Flax
Melilotus officinalis	Yellow Sweetclover
Penstemon eatonii	Eaton's Penstemon
Sphaeralcea grossulariaefolia	Globemallow
<b>SHRUBS</b>	
Artemisia nova	Black Sagebrush
Atriplex confertifolia	Shadscale
Chrysothamnus nauseosus	Rubber Rabbitbrush
Kochia prostrata	Summer Cypress

**SURFACE FACILITY RECLAMATION TEST PLOTS  
WELLINGTON PREPARATION PLANT**

**MIXTURES PLANTED**

**Species Mix C**

**SCIENTIFIC NAME**

**COMMON NAME**

**GRASSES**

*Elymus smithii*  
*Hilaria jamesii*  
*Stipa hymenoides*  
*Sporobolus crytandrus*

Western Wheatgrass  
Galleta  
Indian Ricegrass  
Sand Dropseed

**FORBS**

*Achillea millefolium*  
*Aster chilensis*  
*Helianthus annua*  
*Melilotus officinalis*

Yarrow  
Pacific Aster  
Sunflower  
Yellow Sweetclover

**SHRUBS**

*Atriplex canescens*  
*Atriplex confertifolia*  
*Ceratoides lanata*  
*Kochia prostrata*  
*Sarcobatus vermiculatus*

Four-winged Saltbush  
Shadscale  
Winterfat  
Summer Cypress  
Greasewood

SURFACE FACILITY RECLAMATION TEST PLOTS  
WELLINGTON PREPARATION PLANT

MIXTURES PLANTED

Species Mix D

SCIENTIFIC NAME

COMMON NAME

GRASSES

Elymus hispidus	Intermediate Wheatgrass
Bouteloua gracilis	Blue Grama
Oryzopsis hymenoides	Indian Ricegrass
Sitanion hystrix	Squirreltail

FORBS

Asclepia speciosus	Milkweed
Linum lewsi	Lewis Flax
Medicago sativa	Alfalfa
Penstemon eatonii	Eaton's Penstemon
Penstemon palmeri	Palmer's Penstemon
Sphaeralcea grossulariaefolia	Globemallow

SHRUBS

Artemisia tridentata wyo.	Wyoming Big Sagebrush
Artemisia nova	Black Sagebrush
Atriplex confertifolia	Shadscale
Atriplex canescens	Four-wing Saltbush