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Forest Service Objectives and Procedures Relative to Issuing Railroad Rights-of-Way Easements on the Thunder Basin National Grasslands

The Bankhead-Jones Farm Tenant Act of July 22, 1937 provides the means by which the Forest Service objects can be met:

1. Preplan all railroad rights-of-way, affected adjacent areas and offsite supporting facilities based upon:
 - a. Adequate resource and other pertinent data provided by the railroad or mining companies to enable a right-of-way plan (including reclamation) to be prepared and approved prior to the time construction actually commences; and
 - b. Selection of the most appropriate right-of-way and reclamation system to:
 - (1) Minimize environmental disturbance, and
 - (2) Provide for maximum transportation needs in a single or sequential preplanned operation.
2. In right-of-way construction and reclamation, the operation will seek to achieve the most beneficial use of the National Grasslands in harmony with adjacent public and private lands.

The right-of-way plan (including reclamation) should be a flexible tool capable of periodic review to incorporate advances in technology. The Forest Service will determine whether or not it will approve the right-of-way plan (including reclamation) and issue the easement, or if not, what modifications it deems necessary prior to such action.

The Forest Service will require an operating plan which will more specifically indicate how Forest Service requirements will be met. Such a plan will be modified when changes in operation are anticipated and submitted to the

Forest Supervisor for approval. The Forest Service will periodically review the right-of-way operations as they affect surface values against the easement requirements, operating plan, and the approved right-of-way plan (including reclamation) prepared for that operation.

Ecosystem Description

The following detailed ecosystem information can be related to vegetation and soils for Atlantic Richfield and Kerr-McGee leases by map (individual lease) and ecosystem number.

Ecosystem No. 1: Western wheatgrass-foxtail barley grassland on playas with deep clayey soils.

I. General Description

This ecosystem is found on the playas which are present on nearly level uplands. Soils are deep, clayey, and subject to periodic inundation from runoff but water does not remain surfaced for dry periods. The general appearance of the vegetation is a sparsely vegetated grassland dominated by western wheatgrass (Agropyron smithii). Shrubs or trees do not occur. When not inundated or muddy, this ecosystem can provide grazing for both domestic livestock and wildlife. It can provide water for animals when inundated and may be habitat for amphibians and aquatic birds.

II. Land System

A. Province - Great Plains

B. Section - Missouri Plateau (unglaciated)

C. Subsection - Powder River Basin

D. Landtype Association - Slightly dissected interstream uplands

E. Landtype - Playas

1. Geology - Fluvio-lacustrine sediments eroded from surrounding uplands
2. Physiography - Playas are shallow, intermittent, lakes occurring as slightly concave depressions forming small closed basins on upland landforms.
 - a. Elevation range - 4,600 to 5,000 feet m.s.l.
 - b. Slope angles - 0 to 3 percent.
 - c. Dissection - None.
 - d. Drainage pattern - Undeveloped.
3. Soils - The dominant soil is the McKenzie series. This series consists primarily of gray or dark gray clay materials which have eroded from upland soils. McKenzie clay varies in stage of development as carbonate bearing layers which may occur a few inches to several feet below the surface. The surface layer is 2-5 inches thick and has clay to sandy loam texture. Approximately 85-90% of the soil surface is exposed bare soil. Rocks or erosion pavement is absent. The substratum is dominantly a gray clay and may be more than 60 inches deep. Carbonate content is variable, but usually increases with depth. Internal drainage is very slow. Soil reaction is normally strongly to very strongly alkaline. Saline and sodic salts are present in some locations.
 - a. Depth range - 40 inches.

- b. Texture - Clayey.
 - c. Mineralogy - Montmorillontic
 - d. Series and classification
 - (1) McKenzie: Typic Haplaquept - fine, montmorillontic, calcareous, mesic.
4. Climate: (General pattern for the Powder River Coal Basin)
- a. Precipitation - 10 to 12 inch precipitation zone.
 - b. Temperature (Average and range)
 - (1) Spring: 43°F. (-22 to 95°F.)
 - (2) Summer: 68°F. (29 to 110°F.)
 - (3) Fall: 47°F. (-20 to 100°F.)
 - (4) Winter: 24°F. (-40 to 69°F.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.
 - e. Wind
 - (1) Direction - west to northwest.
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.
5. Hydrology - Runoff water is ponded in the playas for short periods of time following snowmelt and rainstorms. Much of the ponded water is lost to evaporation and deep percolation. A fluctuating water table normally is present in deeper substrata below the dry surface.

III. Vegetation System

- A. Formation - Grassland
- B. Region - Central and Eastern Grassland
- C. Series - Western wheatgrass
- D. Community Type - Western wheatgrass-foxtail barley grassland. The western wheatgrass-foxtail barley grassland community type is almost exclusively associated with the playa landtype. Western wheatgrass provides about 50 percent of the species composition; foxtail barley 45 percent; thus the vegetation is basically bi-specific. Ground cover of vascular vegetation averages less than 10 percent, and the general appearance is a very sparsely vegetated grassland. Litter cover is also very low about 5 percent, and the cryptogam layer is absent. Consequently, most of the ground surface is bare soil. Best estimates of total herbage production is 450 lb/acre of air dry material.

Ecosystem No. 1a: Western wheatgrass-slender spikerush grassland on playas with deep clayey soils.

I. General Description

This grassland ecosystem is found on small playas which are present on

nearly level uplands. Soils are deep, clayey and subject to periodic inundation from runoff. The period of high water appears to be longer than in the western wheatgrass-foxtail barley ecosystem (No. 1) and the vegetative cover is greater, but the general appearance is still a grassland devoid of woody vegetation. When dry, the ecosystem can be grazed by livestock and wildlife; when wet it can provide water for animals and may be habitat for amphibians and other aquatic wildlife.

II. Land System

A. Province - Great Plains

B. Section - Missouri Plateau (unglaciated)

C. Subsection - Powder River Basin

D. Landtype Association - Slightly dissected interstream uplands

E. Landtype - Playa

1. Geology - Fluviolacustrine sediments eroded from surrounding uplands.
2. Physiography - Playas are shallow, intermittent, lakes occurring as slightly concave depressions forming small closed basins on upland landforms.
 - a. Elevation range - 4,600 to 5,000 feet m.s.l.
 - b. Slope angles - 0 to 3 percent.
 - c. Dissection - none.
 - d. Drainage pattern - undeveloped.
3. Soils - The only soil is the McKenzie series. This series consists primarily of gray or dark gray clay materials which have eroded from upland soils. McKenzie clay series varies in stage of development as carbonate bearing layers may occur a few inches to several feet below the surface. The surface layer is 2-5 inches thick and has clay to sandy loam texture. Only 15-50 percent of the soil surface is exposed bare soil. The substratum is dominantly a gray clay and may be more than 60 inches deep. Carbonate content is variable, but usually increases with depth. Internal drainage is very slow. Soil reaction is normally strong to very strongly alkaline. Saline and sodic salts are present in some locations.
 - a. Depth range - 40 inches.
 - b. Texture - Clayey.
 - c. Mineralogy - Montmorillontic.
 - d. Series and classification -
 - (1) McKenzie: Typic Haplaquept - fine, montmorillontic calcareous, mesic.

Ecosystem No. 2: Inland saltgrass-western wheatgrass, blue grama, riparian grassland on alluvial low lands with deep saline-alkaline soils.

I. General Description

This ecosystem is confined to alluvial soils in flat, narrow, valleys of stream courses where saline or alkali salts accumulate. These valleys

may be periodically flooded by runoff water. The vegetation is a grass-land community-type dominated by inland saltgrass (Distichlis spicata spp. stricta). The ecosystem is grazed by both domestic livestock and wild-life.

II. Land System

- A. Province - Great plains
- B. Section - Missouri plateau (unglaciated)
- C. Subsection - Powder River Basin
- D. Landtype Association - Flat relatively narrow valleys
- E. Landtype - Alluvial lowland (saline-alkali)
 - 1. Geology - alluvial deposits formed by the erosion of sedimentary rocks.
 - 2. Physiography - Nearly flat, relatively narrow valleys including the present floodplain, adjacent terraces, and fans along drainages. The physiography represents the activities of stream erosion in a semiarid climate involving channel cutting, streambank erosion and deposition along the meanders.
 - a. Elevation range - 4,000 to 5,000 feet m.s.l.
 - b. Slope angle - 0 to 10 percent slopes
 - c. Dissection - slight
 - d. Drainage pattern - dendritic
 - 3. Soils - The Arvada soils have alkali or saline areas and scabby spots where wind erosion has removed the surface soil and exposed the heavy clay subsoil.

The surface soil consists of 4 to 10 inches of light brownish-gray moderately friable noncalcareous loam, clay loam or clay; the upper 1 to 2 inches is usually platy, loose, and mulchlike. The lower part of the surface soil ordinarily contains a sprinkling of light-gray leached silt or includes a thin light-gray layer where it contacts the subsoil. To a depth of about 25 inches, the subsoil is grayish-brown to dark grayish-brown heavy compact clay of prismatic or columnar structure. The column tops are rounded and covered with gray silt where they are best developed. The lower subsoil is grayish-brown to dark-gray heavy clay to clay loam of massive or cloddy structure. The lower subsoil passes into the little altered calcareous heavy parent material, which continues to depths of 6 feet or more. The parent material rests on gray or dark-gray stratified alluvium of variable texture. Lime carbonate is present in the subsoil in disseminated form; streaks and seams of it occur below an average depth of 15 inches.

- a. Depth range - 60 inches
 - b. Texture - Clayey
 - c. Mineralogy - Montmorillontic
 - d. Series and classification
 - (1) Arvada clay loam and loam - Ustollic Natrargid, fine, montmorillontic, mesic.
4. Climate: (General pattern for the Powder River Coal Basin)
- a. Precipitation - 10 to 12 inch precipitation zone.
 - b. Temperature (Average and range)
 - (1) Spring: 43°F. (-22 to 95°F.)
 - (2) Summer: 68°F. (29 to 110°F.)
 - (3) Fall: 47°F. (-20 to 100°F.)
 - (4) Winter: 24°F. (-40 to 69°F.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.
 - e. Wind
 - (1) Direction - west to northwest.
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.
5. Hydrology - Annual precipitation varies greatly from place to place and may range 50-60 percent from mean annual precipitation. Individual storms are typically of short duration, low volume and limited areal extent. Individual exceptionally intense storms may produce as much runoff as several years normal runoff. High intensity storms usually occur between April and October and between 2 PM and 10 PM, local time. Surface runoff and ground water recharge are severely limited by low precipitation amounts and high evaporation rates. Ground water recharge is further limited where fine textured soils and/or sparse vegetation limit infiltration. Annual runoff is often less than 10 percent of the annual precipitation. Much of the runoff which does occur is during high intensity storms.

III. Vegetation System

- A. Formation - Grassland.
- B. Region - Central and eastern grassland.
- C. Series - Inland saltgrass.
- D. Community Type - Inland saltgrass-western wheatgrass, blue grama, riparian grassland. The dominant species of this community type are inland saltgrass (Distichlis spicata spp. stricta), western wheatgrass (Agropyron smithii) and blue grama (Boutelona gracilis). These three species together contribute about 60 percent of the total herbage production of 600 lb/acre with inland saltgrass contributing 20 to 30

percent of the total. Western wheatgrass is more abundant where subsoil moisture is plentiful. Blue grama may increase in abundance when grazing is heavy or in area with lower soil moisture conditions. Greasewood (Sarcobatus vermiculatus) shrubs are present in this community-type but are not abundant enough to give it a shrubland aspect. Total live vegetation coverage is approximately 30 percent. Litter coverage is slightly greater. (ca. 35-40 percent)

IV. Vegetation System

- A. Formation - Grassland
- B. Region - Central and Eastern Grassland
- C. Series - Western wheatgrass
- D. Community Type - Western wheatgrass-slender spikerush grassland. The dominant species in the western wheatgrass-slender spikerush community type is western wheatgrass (Agropyron smithii). This species produces approximately 40 percent of the average herbage yield of 900 lb/acre. Slender spikerush (Eleocharis acicularis) is co-dominant with western wheatgrass and will comprise about 35 percent of the vegetative cover. The presence of slender spikerush as a co-dominant species is indicative of the almost hydric soil moisture conditions during the growing season. Major species which make up the remaining 25 percent of the vegetation are: foxtail barley (Hordeum jubatum) alkali bluegrass (Poa juncifolia) mat muhly (Muhlenbergia richarsonis). Ground cover of vascular vegetation is about 35 to 40 percent; the cryptogam layer is absent, but the litter layer is quite extensive averaging 50 percent coverage.

Ecosystem No. 3: Bluebunch wheatgrass-blue grama grassland on scoria land with shallow, gravelly soils.

I. General Description

This ecosystem occurs on ridges and hills derived from reddish colored scoria. Soils are shallow and gravelly and tend to be droughty. The general physiognomy is a somewhat sparsely vegetated grassland characterized by scattered tussocks of bluebunch wheatgrass (Agropyron spicatum). The ecosystem provides grazing for livestock and wildlife, and the steeper outcrops may provide nesting or perching site for owls, hawks and other cliff-dwelling birds.

II. Land System

- A. Province - Great plains
- B. Section - Missouri Plateau (unglaciated)
- C. Subsection - Powder River Basin

D. Landtype Association - Slightly dissected interstream uplands

E. Landtype - Scoria land

1. Geology - Reddish colored, clinker type material resulting from fires in coal veins which fused and baked clay and shale materials.
2. Physiography - Numerous outcroppings or knolls of scoria which rise above the general surface of the land. Steep, eroded, strongly dissected areas along escarpments and steepwalled drainage channels.
 - a. Elevation range - 4,500 to 5,000 feet m.s.l.
 - b. Slope angles - 10 to 50 percent slopes.
 - c. Dissection - strong.
 - d. Drainage Pattern - dendritic.
3. Soils - This ecosystem includes Wibaux and Searing soils and rough broken land. The very shallow to shallow Wibaux soils occur on knolls and steep slopes. The texture is gravelly to very gravelly loam and sandy loam. The depth to bedrock is less than 10 inches to 20 inches. Outcrops of unweathered scoria are exposed in some areas. Searing soil normally occurs between the knolls. The surface horizon is reddish brown gravelly loam about 5 inches thick. The subsoil is reddish brown gravelly clay loams. The substratum is friable, calcareous gravelly loam. Bedrock generally occurs at an average depth of 2 feet. Rough broken land includes steep, eroded, strongly dissected areas along escarpments, steepwalled drainage channels and rock outcrops.
 - a. Depth range - Rockoutcrops to 40 inches to bedrock.
 - b. Texture - Gravelly to very gravelly loams and sandy loams.
 - c. Mineralogy - Mixed.
 - d. Series and classification
 - (1) Wibaux - Ustic Torriorthent, loamy-skeltal over fragmental, mixed, non-acid, mesic.
 - (2) Searing - Ustollic Haplargid, fine-loamy, mixed, mesic
 - (3) Rough Broken Land - unclassified.
4. Climate: (General pattern for the Powder River Coal Basin)
 - a. Precipitation - 10 to 12 inch precipitation zone.
 - b. Temperature (Average and range)
 - (1) Spring: 43°F. (-22 to 95°F.)
 - (2) Summer: 68°F. (29 to 110°F.)
 - (3) Fall: 47°F. (-20 to 100°F.)
 - (4) Winter: 24°F. (-40 to 69°F.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.
 - e. Wind
 - (1) Direction - west to northwest.
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.
5. Hydrology - Annual precipitation varies greatly from place to place and may range 50 to 60 percent from mean annual precipitation.

Individual storms are typically of short duration, low volume and limited areal extent. Individual exceptionally intense storms may produce as much runoff as several years normal runoff. High intensity storms usually occur between April and October and between 2 PM and 10 PM, local time. Surface runoff and ground water recharge are severely limited by low precipitation amounts and high evaporation rates. Ground water recharge is further limited where fine textured soil and/or sparse vegetation limit infiltration. Annual runoff is often less than 10 percent of the annual precipitation. Much of the runoff which does occur is during high intensity storms.

III. Vegetation System

- A. Formation - Grassland.
- B. Region - Central and eastern grasslands.
- C. Series - Bluebunch wheatgrass.
- D. Community Type - Bluebunch wheatgrass-blue grama grassland. The bluebunch community-type is characterized by the presence of scattered tussocks of bluebunch wheatgrass dispersed in a matrix of blue grama (Bouteloua gracilis). This is the only community-type on the lease areas where bluebunch wheatgrass is abundant. However, while it is the most conspicuous species, it may not be the most productive. The most productive species is blue grama which may produce over 50 percent of the average annual yield of 260 lbs/acre.

Other grasses include little bluestem (Andropogon scoparius) which also appears to be confined to the ecosystem, stoneyhills muhly (Muhlenbergia cuspidata), prairie sandreed (Calamovilfa longifolia), and Indian ricegrass (Oryzopsis hymenoides). The presence of these minor species reflects the coarse nature of the parent material and consequent droughty soil conditions. In draws and other areas of higher soil moisture conditions a few shrubs may be present. These include big sagebrush (Artemisia tridentata), skunkbrush sumac (Rhus trilobata) and occasionally stunted, gnarled trees of Rocky Mountain juniper (Juniperus scopulorum). Ground coverage in the bluebunch wheatgrass-blue grama community-type is approximately 25 percent vascular vegetation, 2 percent cryptogams and 15 percent litter.

Ecosystem No. 3a: Bluebunch wheatgrass-blue grama grassland on scoria land with shallow to moderately deep soils.

I. General Description

This ecosystem occurs on ridges and hills derived from reddish colored scoria. Soils are shallow to moderately deep and tend to be droughty. The general physiognomy is a somewhat sparsely vegetated grassland characterized by scattered tussocks of bluebunch wheatgrass (Agropyron spicatum).

The ecosystem provides grazing for livestock and wildlife. The steeper outcrops may provide nesting or perching sites for owls, hawks and other cliff-dwelling birds.

II. Land System

A. Province - Great Plains

B. Section - Missouri Plateau (unglaciated)

C. Subsection - Powder River Basin

D. Landtype Association - Slightly dissected interstream uplands

E. Landtype - Scoria land

1. Geology - Reddish colored clinker material from fires in coal veins which fused and baked clay and shale materials.
2. Physiography - undulating to rolling topography including scattered outcrops of scoria. Drainage systems are well developed.
 - a. Elevation range - 4,500 to 5,000 feet m.s.l.
 - b. Slope angles - 5 to 20 percent slopes
 - c. Dissection - moderate
 - d. Drainage Pattern - dendritic
3. Soils - This ecosystem is predominantly Searing gravelly loam. Searing gravelly loam is developing in scoria. The surface horizon is reddish brown gravelly loam about 5 inches thick. The subsoil is reddish brown gravelly clay loam. The substratum is friable, calcareous gravelly loam. Bedrock generally occurs at an average depth of 2 feet. Internal drainage is good. The very shallow to shallow Wibaux soils and some rock outcrops occur in this ecosystem.
 - a. Depth range - generally 20 to 40 inches, includes some shallower soils and outcrops.
 - b. Texture - gravelly loam to clay loam.
 - c. Mineralogy - mixed.
 - d. Series and classification -
 - (1) Searing - Ustollic Haplargid, fine-loamy, mixed mesic.
4. Climate: (General pattern for the Powder River Coal Basin)
 - a. Precipitation - 10 to 12 inch precipitation zone.
 - b. Temperature (Average and range)
 - (1) Spring: 43°F. (-22 to 95°F.)
 - (2) Summer: 68°F. (29 to 110°F.)
 - (3) Fall: 47°F. (-20 to 100°F.)
 - (4) Winter: 24°F. (-40 to 69°F.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.
 - e. Wind
 - (1) Direction - west to northwest.
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.

5. Hydrology - Annual precipitation varies greatly from place to place and may range 50 to 60 percent from mean annual precipitation. Individual storms are typically of short duration, low volume and limited areal extent. Individual exceptionally intense storms may produce as much runoff as several years normal runoff. High intensity storms usually occur between April and October and between 2 PM and 10 PM, local time. Surface runoff and ground water recharge are severely limited by low precipitation amounts and high evaporation rates. Ground water recharge is further limited where fine textured soils and/or sparse vegetation limit infiltration. Annual runoff is often less than 10 percent of the annual precipitation. Much of the runoff which does occur is during high intensity storms.

III. Vegetation System

- A. Formation - Grassland.
- B. Region - Central and eastern grasslands.
- C. Series - Bluebunch wheatgrass.
- D. Community Type - Bluebunch wheatgrass-blue grama grassland. The bluebunch community-type is characterized by the presence of scattered tussocks of bluebunch wheatgrass dispersed in a matrix of blue grama (Bouteloua gracilis). This is the only community-type on the lease areas where bluebunch wheatgrass is abundant. However, while it is most conspicuous species, it may not be the most productive. The most productive species is blue grama which may produce over 50 percent of the average annual yield of 260 lbs/acre.

Other grasses include little bluestem (Andropogon scoparius) which also appears to be confined to the ecosystem, stoneyhills muhly (Muhlenbergia cuspidata), prairie sandreed (Calamovilfa longifolia), and Indian ricegrass (Oryzopsis hymenoides). The presence of these minor species reflects the coarse nature of the parent material and consequent droughty soil conditions. In draws and other areas of higher soil moisture conditions a few shrubs may be present. These include big sagebrush (Atemesia tridentata), skunkbrush sumac (Rhus tribolata), and occasionally stunted, gnarled trees of Rocky Mountain juniper (Juniperus scopulorum). Ground coverage in the bluebunch wheatgrass-blue grama community-type is approximately 25 percent vascular vegetation, 2 percent cryptogams and 15 percent litter.

Ecosystem No. 4: Big sagebrush/western wheatgrass-blue grama shrub steppe on dissected sideslopes with moderately deep, clayey, soils.

I. General Description

This ecosystem occurs on sideslope terrain which is somewhat dissected. Soils are shallow to moderately deep and tend to be clay loam or clayey in texture. The vegetation is a shrub steppe with big sagebrush (Artemesia

tridentata), the shrub layer dominant. The herbacious layer is characterized by western wheatgrass (Agropyron smithii) and blue grama (Bouteloua gracilis). This is a major ecosystem on the lease area. It provides grazing for livestock and wildlife.

II. Land System

A. Province - Great Plains

B. Section - Missouri Plateau

C. Subsection - Powder River Basin

D. Landtype Association - Slightly dissected interstream uplands

E. Landtype - Dissected sideslopes

1. Geology - Weathered shale of the Lance, Wasatch and Fort Union Formations.
2. Physiography - These dissected sideslopes flank the gently rolling upland surfaces. Relief is gentle and the landscape consists of rolling, small rounded hills descending from the upper surface toward the valley bottoms.
 - a. Elevation range - 4,500 to 5,000 feet
 - b. Slope angles - 10 to 30 percent
 - c. Dissection - moderate
 - d. Drainage pattern - dendritic
3. Soils - The dominant soil is the Renohill series. This series consists primarily of light-colored moderately friable soils having a fine textured, compact, slowly permeable subsoil. The 3 to 10 inch surface soils is mulch like in the upper 1 or 2 inches and soft granular in the clay loam layer below. The upper subsoil is compact clay with prismatic or blocky structure. As a rule, the upper subsoil contains no free lime carbonates. The lower subsoil is more friable with an abundance of lime carbonate. The weathered parent shale occurs at depths of 20 to 30 inches. Internal drainage is slow due to the compact subsoil.
 - a. Depth range - less than 10 inches to 30 inches.
 - b. Texture - clay loam surface; clay subsoil.
 - c. Mineralogy - Montmorillontic.
 - d. Series and classification
 - (1) Renohill, clay loam
 - (2) Ustollic Haplargid, fine, montmorillontic, mesic
4. Climate: (General pattern for the Powder River Coal Basin)
 - a. Precipitation - 10 to 12 inch precipitation zone.
 - b. Temperature (Average and range)
 - (1) Spring: 43^oF. (-22 to 95^oF.)
 - (2) Summer: 68^oF. (29 to 110^oF.)
 - (3) Fall: 47^oF. (-20 to 100^oF.)
 - (4) Winter: 24^oF. (-40 to 69^oF.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.

- e. Wind
 - (1) Direction - west to northwest.
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.
- 5. Hydrology - Annual precipitation varies greatly from place to place and may range 50 to 60 percent from mean annual precipitation. Individual storms are typically of short duration, low volume and limited areal extent. Individual exceptionally intense storms may produce as much runoff as several years normal runoff. High intensity storms usually occur between April and October and between 2 PM and 10:00 PM, local time. Surface runoff and ground water recharge are severely limited by low precipitation amounts and high evaporation rates. Ground water recharge is further limited where fine textured soils and/or sparse vegetation limit infiltration. Annual runoff is often less than 10 percent of the annual precipitation. Much of the runoff which does occur is during high intensity storms.

III. Vegetation System

- A. Formation - Shrubland
- B. Region - Western shrub
- C. Series - Big sagebrush
- D. Community-Type - Big sagebrush/western wheatgrass-blue grama shrub steppe.

The shrub layer of this plant community is composed almost entirely of big sagebrush. The height of this layer generally does not exceed 18- to 24-inches. Density will range from scattered to closely spaced, but the crowns of individual plants rarely touch. Canopy coverage of big sagebrush is 4 to 6 percent range and total coverage of live vegetation about 35 to 40 percent. Litter and cryptogams cover about 35 percent of the ground surface.

The herbaceous layer is composed of species common to the Northern Great Plains. Grasses and graminoids predominate, but forbs are evident in the early part of the growing season (April-May). Western wheatgrass (Agropyron smithii) and blue grama (Bouteloua gracilis) are the herbaceous layer dominant and the former is often the most productive. Important subordinate graminoids and grasses are thread-leaf sedge (Carex filifolia). Sandberg bluegrass (Poa sandbergii) and prairie junegrass (Koelaria cristata). Average annual herbage production is 350 lbs/acre.

Ecosystem No. 4a: Big sagebrush/western wheatgrass-blue grama shrub steppe on dissected sideslopes with moderately deep, clayey soils.

I. General Description

This ecosystem occurs on sideslope terrain which is somewhat dissected. Soils are shallow to moderately deep and tend to be clayey in texture. The vegetation is a shrub steppe with big sagebrush (Artemesia tridentata) as the shrub layer dominant. The herbaceous layer is characterized by western wheatgrass (Agropyron smithii) and blue grama (Bouteloua gracilis). This is a major ecosystem on the lease area. It provides grazing for livestock and wildlife.

II. Land System

A. Province - Great Plains

B. Section - Missouri Plateau (unglaciated)

C. Subsection - Powder River Basin

D. Landtype Association - Slightly dissected interstream uplands

E. Landtype - Dissected sideslopes

1. Geology - Weathered shale of the Lance, Wasatch and Fort Union Formations.
2. Physiography - These dissected sideslopes flank the gently rolling upland surfaces. Relief is gentle and the landscape consists of rolling, small rounded hills descending from the upper surface toward the valley bottoms.
 - a. Elevation range - 4,500 to 5,000 feet
 - b. Slope angles - 10 to 30 percent
 - c. Dissection - Moderate
 - d. Drainage pattern - dendritic
3. Soils - The dominant soil is the Renohill series. This series consists primarily of light-colored moderately friable soils having a fine textured, compact, slowly permeable subsoil. The 3 to 10 inch surface soil is mulchlike in the upper 1 or 2 inches and soft granular in the loam layer below. The upper subsoil is compact clay loam to clay with prismatic or blocky structure. Generally the upper subsoil is more friable with an abundance of lime carbonate. The weathered parent shale occurs at depths of 10 to 30 inches. Internal drainage is slow due to the compact subsoil.
 - a. Depth range - less than 10 to 30 inches
 - b. Texture - sandy loam to loam surface; clay loam to clay subsoil
 - c. Mineralogy - montmorillontic
 - d. Series and classification
 - (1) Renohill loam, rolling phase
 - (2) Ustollic Haplargid, fine, montmorillontic, mesic
4. Climate: (General pattern for the Powder River Coal Basin)
 - a. Precipitation - 10 to 12 inch precipitation zone.

- b. Temperature (Average and range)
 - (1) Spring: 43^oF. (-22 to 95^oF.)
 - (2) Summer: 68^oF. (29 to 110^oF.)
 - (3) Fall: 47^oF. (-20 to 100^oF.)
 - (4) Winter: 24^oF. (-40 to 69^oF.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.
 - e. Wind
 - (1) Direction- west to northwest.
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.
5. Hydrology - Annual precipitation varies greatly from place to place and may range 50 to 60 percent from mean annual precipitation. Individual storms are typically of short duration, low volume and limited areal extent. Individual exceptionally intense storms may produce as much runoff as several years normal runoff. High intensity storms usually occur between April and October and between 2 PM and 10 PM, local time. Surface runoff and ground water recharge are severely limited by low precipitation amounts and high evaporation rates. Ground water recharge is further limited where fine textured soils and/or sparse vegetation limit infiltration. Annual runoff is often less than 10 percent of the annual precipitation. Much of the runoff which does occur is during high intensity storms.

III. Vegetation System

- A. Formation - Shrubland
- B. Region - Western shrub
- C. Series - Big sagebrush
- D. Community-type - Big sagebrush/western wheatgrass-blue grama shrub steppe.

The shrub layer of this plant community is composed almost entirely of big sagebrush. The height of this layer generally does not exceed 18 to 24 inches. Density will range from scattered to closely spaced, but the crowns of individual plants rarely touch. Canopy coverage of big sagebrush is 4 to 6 percent range and total coverage of live vegetation about 35 to 40 percent. Litter and cryptograms cover about 35 percent of the ground surface.

The herbaceous layer is composed of species common to the Northern Great Plains. Grasses and graminoids predominate, but forbs are evident in the early part of the growing season (April-May). Western wheatgrass (Agropyron smithii) and blue grama (Bouteloua gracilis) are the herbaceous layer dominant and the former is often the most productive. Important subordinate graminoids and grasses are thread-leaf sedge (Carex filifolia). Sandberg bluegrass (Poa sandbergii) and prairie junegrass (Koelaria cristata). Average annual herbage production is 350 lbs/acre.

Ecosystem No. 5: Big sagebrush/western wheatgrass-blue grama shrub steppe on rough broken land side slopes with shallow clayey soils.

I. General Description

This ecosystem is present on rough and broken topography. Soils are shallow, textures tend to be somewhat clayey, but drainage is not impeded. The vegetation is a very open shrub-steppe of big sagebrush (Artemesia tridentata) with a sparse herbaceous understory of grasses. This is a major ecosystem on the lease areas. It is grazed by both livestock and wildlife, but is low in production of herbage.

II. Land System

A. Province - Great Plains

B. Section - Missouri Plateau (unglaciated)

C. Subsection - Powder River Basin

D. Landtype Association - Slightly dissected interstream uplands.

E. Landtype - Rough and broken land sideslopes

1. Geology - Interbedded shale, sandstone and limestone.
2. Physiography - Rough eroded and deeply dissected sideslope areas along escarpments, steep-walled drainage channel and rock outcrops.
 - a. Elevation range - 4,500 to 5,000 feet m.s.l.
 - b. Slope angles - 20 to 50 percent slopes.
 - c. Dissection - strong
 - d. Drainage pattern - dendritic
3. Soils - Small areas of shallow stony soils and deep stone free soils are intermingled with the areas of rock outcrops. The mixed pattern is related to the interbedded sandstone and shales compounded by strong dissection.
 - a. Depth range - 0 to 20 inches.
 - b. Texture - loamy and clayey.
 - c. Mineralogy - mixed and montmorillontic
 - d. Series and classification
 - (1) Rough broken land - unclassified.
 - (2) Ustic Torriorthents loamy and clayey, mixed and montmorillontic, calcareous, mesic, shallow.
4. Climate: (General pattern for the Powder River Coal Basin)
 - a. Precipitation - 10 to 12 inch precipitation zone.
 - b. Temperature (Average and range)
 - (1) Spring: 43°F. (-22 to 95°F.)
 - (2) Summer: 68°F. (29 to 110°F.)
 - (3) Fall: 47°F. (-20 to 100°F.)
 - (4) Winter: 24°F. (-40 to 69°F.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.

- e. Wind
 - (1) Direction - west to northwest.
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.
- 5. Hydrology - Annual precipitation varies greatly from place to place and may range 50 to 60 percent from mean annual precipitation. Individual storms are typically of short duration, low volume and limited areal extent. Individual exceptionally intense storms may produce as much runoff as several years normal runoff. High intensity storms usually occur between April and October and between 2 PM and 10 PM, local time. Surface runoff and ground water recharge are severely limited by low precipitation amounts and high evaporation rates. Ground water recharge is further limited where fine textured soils and/or sparse vegetation limit infiltration. Annual runoff is often less than 10 percent of the annual precipitation. Much of the runoff which does occur is during high intensity storms.

III. Vegetation System

- A. Formation - Shrubland
- B. Region - Western shrub
- C. Series - Big sagebrush
- D. Community-type - Big sagebrush/western wheatgrass-blue grama shrub steppe.

The shrub layer of this community-type is composed entirely of big sagebrush (Artemisia tridentata). The height of this layer does not usually exceed 12 inches and the general aspect is a very open stand of low-growing big sagebrush with a poorly developed herbaceous understory. Major grasses in the understory are western wheatgrass (Agropyron smithii), blue grama (Bouteloua gracilis) and prairie junegrass (Koeleria cristata). These grasses, plus big sagebrush will provide 60 to 70 percent of the total composition. Herbage production is low -- 200 lb/acre as is ground coverage, which will average only about 20 percent, with big sagebrush contributing 10 to 15 percent of this or about 2 to 3 percent actual ground coverage. Litter cover is approximately 15 percent of the ground surface and cryptogams cover 1 to 2 percent.

Ecosystem No. 6: Big sagebrush/needleandthread/blue grama shrub steppe on nearly level to gently sloping uplands with moderately deep loamy soils.

I. General Description

This ecosystem is characterized by gently sloping to rolling uplands where soil texture is loamy to sandy. The vegetation is a shrub steppe community

type with big sagebrush as the shrub-layer dominant. The understory is composed of grasses and forbs common to the Great Plains grasslands. This is the most widely distributed ecosystem of the lease area. It is used by both livestock and wildlife for grazing and is moderately productive.

II. Land System

A. Province - Great Plains

B. Section - Missouri Plateau (unglaciated)

C. Subsection - Powder River Basin

D. Landtype Association - Slightly dissected interstream uplands

E. Landtype - Gently sloping to rolling uplands.

1. Geology - Weathered sandy shale or loam stone of the Lance Formation.
2. Physiography - These gently sloping to rolling uplands occur as table lands above the surrounding gently rolling sideslope landscape.
 - a. Elevation range - 4,500 to 5,000 feet.
 - b. Slope angles - 2 to 15 percent
 - c. Dissection - slight
 - d. Drainage pattern - dendritic
3. Soils - The Ulm soils are loamy or slightly sandy, generally stone-free, soil of adequate drainage and excellent tilth. They have friable grayish-brown surface soil, a light-brown or reddish upper subsoil, and a light grayish-brown or reddish lower subsoil in which lime carbonate has accumulated. The reddish subsoil phase has developed from erosional sediments derived from scoria beds. Internal drainage is moderate due to the medium textured subsoils.
 - a. Depth range - 20 to 40 inches.
 - b. Texture - loams, sandy loams and light clay loams.
 - c. Mineralogy - mixed.
 - d. Series and classification
 - (1) Ulm and Ulm, reddish subsoil phase, loams.
 - (2) Ustollic Haplargids, fine-loamy, mixed, mesic.
4. Climate: (General pattern for the Powder River Coal Basin)
 - a. Precipitation - 10 to 12 inch precipitation zone.
 - b. Temperature (Average and range)
 - (1) Spring: 43^oF. (-22 to 95^oF.)
 - (2) Summer: 68^oF. (29 to 110^oF.)
 - (3) Fall: 47^oF. (-20 to 100^oF.)
 - (4) Winter: 24^oF. (-40 to 69^oF.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.

- e. Wind
 - (1) Direction - west to northwest.
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.
- 5. Hydrology - Annual precipitation varies greatly from place to place and may range 50 to 60 percent from mean annual precipitation. Individual storms are typically of short duration, low volume and limited areal extent. Individual exceptionally intense storms may produce as much runoff as several years normal runoff. High intensity storms usually occur between April and October and between 2 P.M. and 10 P.M., local time. Surface runoff and ground water recharge are severely limited by low precipitation amounts and high evaporation rates. Ground water recharge is further limited where fine textured soils and/or sparse vegetation limit infiltration. Annual runoff is often less than 10 percent of the annual precipitation. Much of the runoff which does occur is during high intensity storms.

III. Vegetation System

- A. Formation - Shrubland
- B. Region - Western shrub
- C. Series - Big sagebrush
- D. Community-type - Big sagebrush/needleandthread-blue grama shrub steppe.

The shrub layer in this community type is composed solely of big sagebrush (Artemisia tridentata). This layer has a canopy coverage of approximately 5 to 7 percent and the height of the tallest shrub will rarely be more than 18 to 24 inches. The characteristic herbaceous layer species is needleandthread (Stipa comata), but blue grama (Bouteloua gracilis) is generally the most productive grass. It produces 40 to 45 percent of the total annual herbage crop of 450 lbs. per acre. Other grasses include Indian ricegrass. (Oryzopsis hymenoides), prairie junegrass (Koeleria cristata), sandberg bluegrass (Poa sandbergii) and threadleaf sedge (Carex filifolia). Total ground coverage of live vegetation (including big sagebrush) is 30 to 35 percent. Litter and cryptogams cover 35 to 40 percent of the ground surface.

Ecosystem No. 6a: Big sagebrush/needleandthread-blue grama shrub steppe on dissected sideslopes with shallow to moderately deep loamy soils.

I. General Description

This ecosystem occurs on sideslopes terrain which is dissected. Soils are loamy in texture and shallow to moderately deep. The vegetation is a shrub steppe community-type with big sagebrush as the shrub layer dominant.

The understory is composed of grasses and forbs common to the Great Plains grassland. This is the most widely distributed ecosystem of the lease area. It is used by both livestock and wildlife for grazing and is moderately productive.

II. Land System

A. Province - Great Plains

B. Section - Missouri Plateau (unglaciated)

C. Subsection - Powder River Basin

D. Landtype Association - Slightly dissected interstream uplands

E. Landtype - Dissected sideslopes

1. Geology - Weathered sandy shale or loamstone of the Lance Formation.
2. Physiography - These dissected sideslopes flank the gently rolling upland surfaces. Relief is gentle and the landscape consists of rolling, small rounded hills descending from the upper surface toward the valley bottoms.
 - a. Elevation range - 4,500 to 5,000 feet m.s.l.
 - b. Slope angles - 10 to 30 percent slope
 - c. Dissection - moderate
 - d. Drainage pattern - dendritic
3. Soils - The Ulm soils are loamy or slightly sandy and generally stone free. The surface horizon is friable loam 3 to 7 inches thick. The subsoil ranges from sandy clay loam to clay loam. The calcareous substratum ranges from sandy loam to clay loam and extends to weathered bedrock at depths of 20 to 40 inches. Internal drainage is good.
 - a. Depth range - 20 to 40 inches.
 - b. Texture - loam, sandy loam, clay loam.
 - c. Mineralogy - mixed.
 - d. Series and classification
 - (1) Ulm loam, rolling phase
 - (2) Ustollic Haplargids, fine-loamy, mixed, mesic
4. Climate: (General pattern for the Powder River Coal Basin)
 - a. Precipitation - 10 to 12 inch precipitation zone.
 - b. Temperature (Average and range)
 - (1) Spring: 43^oF. (-22 to 95^oF.)
 - (2) Summer: 68^oF. (29 to 110^oF.)
 - (3) Fall: 47^oF. (-20 to 100^oF.)
 - (4) Winter: 24^oF. (-40 to 69^oF.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.
 - e. Wind
 - (1) Direction - west to northwest.
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.

5. Hydrology - Annual precipitation varies greatly from place to place and may range 50 to 60 percent from mean annual precipitation. Individual storms are typically of short duration, low volume and limited areal extent. Individual exceptionally intense storms may produce as much runoff as several years normal runoff. High intensity storms usually occur between April and October and between 2 P.M. and 10 P.M., local time. Surface runoff and ground water recharge are severely limited by low precipitation amounts and high evaporation rates. Ground water recharge is further limited where fine textured soils and/or sparse vegetation limit infiltration. Annual runoff is often less than 10 percent of the annual precipitation. Much of the runoff which does occur is during high intensity storms.

III. Vegetation System

- A. Formation - Shrubland
- B. Region - Western shrub
- C. Series - Big sagebrush
- D. Community-type Big sagebrush/needleandthread-blue grama shrub steppe.

The shrub layer in this community-type is composed solely of big sagebrush (Artemesia tridentata). This layer has a canopy coverage of approximately 5 to 7 percent and the height of the tallest shrub will rarely be more than 18 to 24 inches. The characteristic herbaceous layer species is needleandthread (Stipa comata), but blue grama (Bouteloua gracilis) is generally the most productive grass. It produces 40 to 45 percent of the total annual herbage crop of 450 lbs. per acre. Other grasses include Indian ricegrass (Oryzopsis hymenoides), prairie junegrass (Koeleria cristata), sandberg bluegrass (Poa sandbergii) and threadleaf sedge (Carex filifolia). Total ground coverage of live vegetation (including big sagebrush) is 30 to 35 percent. Litter and cryptogams cover 35 to 40 percent of the ground surface.

Ecosystem No. 6b: Big sagebrush/needleandthread-blue grama shrub steppe on gently sloping to rolling uplands with shallow loamy soils.

I. General Description

This ecosystem is characteristic of nearly level to gently sloping uplands where soil texture is loamy to sandy. The vegetation is a shrub steppe community-type with big sagebrush as the shrub-layer dominant. The understory is composed of grasses and forbs common to the Great Plains grassland. This is the most widely distributed ecosystem of the lease area. It is used by both livestock and wildlife for grazing and is moderately productive.

II. Land System

- A. Province - Great Plains
- B. Section - Missouri Plateau (unglaciated)
- C. Subsection - Powder River Basin
- D. Landtype Association - Slightly dissected interstream uplands.
- E. Landtype - Gently sloping to rolling uplands
 - 1. Geology - Weathered sandy shale or loamstone of the Lance Formation.
 - 2. Physiography - These gently sloping to rolling uplands occur as table lands above the surrounding gently rolling sideslopes landscape. Thought of by some as a plateau-like rolling divide.
 - a. Elevation range - 4,500 to 5,000 feet.
 - b. Slope angles - 10 to 30 percent
 - c. Dissection - moderate
 - d. Drainage pattern - dendritic
 - 3. Soils - The surface soil is about 6 inches of light grayish-brown to light olive-brown soft granular clay loam. In most areas it is noncalcareous in the upper part, but contains some free lime carbonates in the lower. The surface 2½ inch layer is normally mulchlike or platy. The subsoil is light grayish-brown or yellowish-brown, massive or weakly prismatic, highly calcareous silty clay loam that becomes more loamy and friable with depth. Internal drainage is moderate due to the medium textured subsoils.
 - a. Depth range - 10 to 20 inches.
 - b. Texture - loams, silty clay loams, and clay loams.
 - c. Mineralogy - mixed
 - d. Series and classification
 - (1) Ulm clay loam shallow phase
 - (2) Ustollic Haplargid, fine-loamy, mixed, mesic shallow
 - 4. Climate: (General pattern for the Powder River Coal Basin)
 - a. Precipitation - 10 to 12 inch precipitation zone.
 - b. Temperature (Average and range)
 - (1) Spring: 43°F. (-22 to 95°F.)
 - (2) Summer: 68°F. (29 to 110°F.)
 - (3) Fall: 47°F. (-20 to 100°F.)
 - (4) Winter: 24°F. (-40 to 69°F.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.
 - e. Wind
 - (1) Direction - west to northwest.
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.

5. Hydrology - Annual precipitation varies greatly from place to place and may range 50 to 60 percent from mean annual precipitation. Individual storms are typically of short duration, low volume and limited areal extent. Individual exceptionally intense storms may produce as much runoff as several years normal runoff. High intensity storms usually occur between April and October and between 2 PM or 10 PM, local time. Surface runoff and ground water recharge are severely limited by low precipitation amounts and high evaporation rates. Ground water recharge is further limited where fine textured soils and/or sparse vegetation limit infiltration. Annual runoff is often less than 10 percent of the annual precipitation. Much of the runoff which does occur is during high intensity storms.

III. Vegetation System

- A. Formation - Shrubland
- B. Region - Western Shrub
- C. Series - Big Sagebrush
- D. Community-type - Big sagebrush/needleandthread-blue grama shrub steppe.

The shrub layer in this community type is composed solely of big sagebrush (Artemisia tridentata). This layer has a canopy coverage of approximately 5 to 7 percent and the height of the tallest shrub will rarely be more than 18 to 24 inches. The characteristic herbaceous layer species is needleandthread (Stipa comata), but blue grama (Bouteloua gracilis) is generally the most productive grass. It produces 40 to 45 percent of the total annual herbage crop of 450 lbs. per acre. Other grasses include Indian ricegrass (Oryzopsis hymenoides), prairie junegrass (Koeleria cristata) sandberg bluegrass (Poa sandbergii) and threadleaf sedge (Carex filifolia). Total ground coverage of live vegetation (including big sagebrush) is 30 to 35 percent. Litter and cryptogams cover 35 to 40 percent of the ground surface.

Ecosystem No. 7: Big sagebrush/blue grama shrub steppe on gently sloping uplands with moderately deep clayey soils.

I. General Description

This ecosystem is characteristic of nearly level to gently sloping uplands with clayey textured soils. The vegetation is a shrub steppe community-type with big sagebrush as the shrub-layer dominant. The understory is composed of grasses and forbs common to the Great Plains grassland. The

ecosystem is used by both livestock and wildlife for grazing and is moderately productive.

II. Land System

A. Province - Great Plains

B. Section - Missouri Plateau (unglaciated)

C. Sub-Section - Powder River Basin

D. Landtype Association - Slightly dissected interstream uplands.

E. Landtype - Gently sloping to nearly level uplands.

1. Geology - Weathered shale of the Lance, Wasatch, and Fort Union Formations.
2. Physiography - These gently sloping to rolling uplands occur as table lands above the surrounding gently rolling sideslope landscape.
 - a. Elevation range - 4,500 to 5,000 feet.
 - b. Slope angles - 2 to 15 percent.
 - c. Dissection - Slight.
 - d. Drainage pattern - dendritic.
3. Soils - The dominant soil is the Renohill series. This series consists primarily of light-colored moderately friable soils having a fine textured, compact, slowly permeable subsoil. The 3 to 10 inch surface soil is mulchlike in the upper 1 or 2 inches and soft granular in the clay loam layer below. The upper subsoil is compact clay with prismatic or blocky structure. As a rule, the upper subsoil contains no free lime carbonates. The lower subsoil is more friable with an abundance of lime carbonate. The weathered parent shale occurs at depths of 20 to 40 inches. Internal drainage is slow due to the compact subsoil. Renohill loam is included in this unit due to limited acreage. This soil unit differs by having a loam surface and responds to some management activities in different manners.
 - a. Depth range - 20 to 40 inches.
 - b. Texture - Clay loam surface; clay subsoil. Inclusions of loam surface.
 - c. Mineralogy - Montmorillontic.
 - d. Series and classification:
 - (1) Renohill, clay loam (inclusions of loam)
 - (2) Ustollic Haplargid, fine, montmorillontic, mesic
4. Climate - (General pattern for the Powder River Coal Basin)
 - a. Precipitation - 10 to 12 inch precipitation zone.
 - b. Temperature (Average and range)
 - (1) Spring: 43°F. (-22 to 95°F.)
 - (2) Summer: 68°F. (29 to 100°F.)
 - (3) Fall: 47°F. (-20 to 100°F.)
 - (4) Winter: 24°F. (-40 to 69°F.)
 - c. Growing season - 119 to 141 days.
 - d. Sunshine - 60 to 70 percent possible.

- e. Wind
 - (1) Direction - west to northwest
 - (2) Velocity - 6 to 8 mph; 30 to 40 mph frequently; maximum March to May.
- 5. Hydrology - Annual precipitation varies greatly from place to place and may range 50 to 60 percent from mean annual precipitation. Individual storms are typically of short duration, low volume and limited areal extent. Individual exceptionally intense storms may produce as much runoff as several years normal runoff. High intensity storms usually occur between April and October and between 2 PM and 10 PM, local time. Surface runoff and ground water recharge are severely limited by low precipitation amounts and high evaporation rates. Ground water recharge is further limited where fine textured soils and/or sparse vegetation limit infiltration. Annual runoff is often less than 10 percent of the annual precipitation. Much of the runoff which does occur is during high intensity storms.

III. Vegetation System

- A. Formation - Shrubland
- B. Region - Western Shrub
- C. Series - Big sagebrush
- D. Community type - Big sagebrush/blue grama

The big sagebrush/blue grama community type is very similar in species composition to the big sagebrush/blue grama - needleandthread community type except that needleandthread is not present as a co-dominant in the herbaceous layer. Total vegetation coverage is approximately 35 percent with big sagebrush contributing 4 to 6 percent of this. Blue grama coverage will be in the range of 18 to 20 percent. Litter and cryptogams together cover 35 to 40 percent of the ground surface. The community-type is relatively productive for the area and will produce 350 to 400 lbs/acre of herbage in a normal year.

RAILROAD APPLICATION TO ICC

BEFORE THE
INTERSTATE COMMERCE COMMISSION

APPLICATION OF BURLINGTON NORTHERN)
INC. AND CHICAGO AND NORTH WESTERN)
TRANSPORTATION COMPANY PURSUANT TO) FINANCE DOCKET NO.
SECTION 1(18) OF THE INTERSTATE)
COMMERCE ACT FOR AUTHORITY TO CON-)
STRUCT AND OPERATE A LINE OF RAILROAD)
IN CONVERSE AND CAMPBELL COUNTIES,)
WYOMING)

APPLICATION
AND
ENVIRONMENTAL IMPACT STATEMENT
INDICATING NO SIGNIFICANT ADVERSE
ENVIRONMENTAL IMPACT

ANTHONY KANE
FRANK S. FARRELL
RICHARD M. GLEASON

RICHARD M. FREEMAN
LOUIS T. DUERINCK

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Attorneys for Applicant
Chicago and North Western
Transportation Company
400 West Madison Street
Chicago, Illinois 60606

Chicago, Illinois
January 31, 1974

BEFORE THE
INTERSTATE COMMERCE COMMISSION

APPLICATION OF BURLINGTON NORTHERN)
INC. AND CHICAGO AND NORTH WESTERN)
TRANSPORTATION COMPANY PURSUANT TO) FINANCE DOCKET NO.
SECTION 1(18) OF THE INTERSTATE)
COMMERCE ACT FOR AUTHORITY TO CON-)
STRUCT AND OPERATE A LINE OF RAILROAD)
IN CONVERSE AND CAMPBELL COUNTIES,)
WYOMING)

APPLICATION

For their application under Section 1(18) of the Interstate Commerce Act, Burlington Northern Inc. (Burlington Northern) and Chicago and North Western Transportation Company (North Western) state as follows, pursuant to Section 1120.1 et seq. of the Code of Federal Regulations, Title 49:

(a) The exact corporate name of applicants is: Burlington Northern Inc., and Chicago and North Western Transportation Company.

(b) Applicants are carriers by railroad subject to the Interstate Commerce Act.

(c) Burlington Northern was incorporated January 13, 1961, in the State of Delaware as Great Northern Pacific and

Burlington Lines, Inc. The name was subsequently changed to Burlington Northern Inc. It is authorized to, and does, operate as a common carrier by railroad in Wyoming and 15 other states. North Western was incorporated on March 24, 1970, in the state of Delaware under the name North Western Employees Transportation Corporation. Its present name was adopted in May 1972. Since June 1, 1972, pursuant to the authority granted in Finance Docket Nos. 26371 and 26372, it has operated as a common carrier by railroad in Wyoming and ten other states.

(d) It is proposed to construct a new line of railroad as a main line from a point on Burlington Northern's existing Gillette (Wyoming) branch at approximately Milepost 13 southerly through Campbell and Converse Counties to applicant North Western's present line of railroad at Fisher and Shawnee, Wyoming. That portion of the proposed line lying between Burlington Northern's Gillette branch and a point in Township 46 North will be constructed and operated solely by applicant Burlington Northern. The remainder of the line will be jointly constructed, owned and operated by both applicants.

(e) The entire line of railroad will be located in Campbell and Converse Counties, Wyoming.

(f) The proposed Burlington Northern line will connect with applicant Burlington Northern's existing Gillette branch at approximately Milepost 13 and will extend in a southerly direction to the beginning of joint trackage in Township 46 North. This joint line will connect with applicant North Western's main line at two points. The most easterly connection will be approximately at Milepost 521.1 at Shawnee and the westerly connection at approximately Milepost 527.8 at Fisher, both points being on applicant North Western's present line from Chadron, Nebraska through Douglas, Wyoming. None of the proposed line will pass through any incorporated city or village.

(g) The total length of the line will be approximately 116 miles plus spur tracks, of which approximately 96 miles of main line will be joint line and approximately 10 miles of which will be Burlington Northern sole ownership line.

(h) The line is to be constructed for the movement of low sulphur coal which is being produced in the area which the line will traverse. The coal will move and be marketed in the Midwest, East, South, and Southwest. Mines are to be opened along the route of the proposed line to meet the growing demand for coal with low pollutant characteristics. The most economical and efficient means by which this coal can be

transported to power generation sites is by rail over the proposed line.

(i) Neither applicant has traffic nor financial arrangements with any other corporation or corporations respecting this line. Construction of the line will be financed by applicants.

(j) Authorization to file this application was given by Burlington Northern's Board of Directors at a regular meeting held on January 14, 1974 at St. Paul, Minnesota and will be given by North Western's Directors at its regular meeting in Chicago, Illinois on February 25, 1974.

(k) Communications regarding this application should be addressed to:

Richard M. Gleason
Assistant General Counsel
Burlington Northern Inc.
176 East Fifth Street
St. Paul, Minnesota 55101

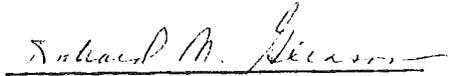
Louis T. Duerinck
Assistant General Counsel
Chicago and North Western
Transportation Company
400 West Madison Street
Chicago, Illinois 60606

(l) Exhibit A is a sketch map depicting both applicant's existing lines together with the proposed line. Exhibit B attached to this application shows the proposed line together with existing highway lines, villages, towns and other required

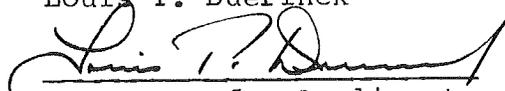
information, and shows the limits of the joint track and the sole Burlington Northern track.

Respectfully submitted,

Anthony Kane
Frank S. Farrell
Richard M. Gleason


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STATE OF MINNESOTA }
COUNTY OF RAMSEY } ss.

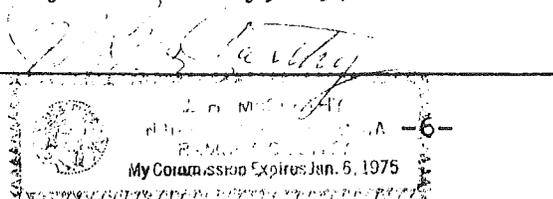
VERIFICATION

R. W. DOWNING makes oath and says that he is Vice Chairman - Chief Operating Officer of Burlington Northern Inc., applicant herein; that he has been authorized by proper corporate action on the part of said applicant, or by proper court, to verify and file with the Interstate Commerce Commission the foregoing application in Finance Docket No. _____; that he has carefully examined all the statements referred to in said application and the exhibits attached thereto and made a part thereof; that he has knowledge of the matters set forth in such application and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information and belief.

R. W. Downing

R. W. Downing

Subscribed and sworn to before me
James H. McCarthy in and for the
State and County above named, this
30th day of January, 1974.



BEFORE THE
INTERSTATE COMMERCE COMMISSION

APPLICATION OF BURLINGTON NORTHERN)
INC. AND CHICAGO AND NORTH WESTERN)
TRANSPORTATION COMPANY PURSUANT TO) FINANCE DOCKET NO.
SECTION 1(18) OF THE INTERSTATE)
COMMERCE ACT FOR AUTHORITY TO CON-)
STRUCT AND OPERATE A LINE OF RAILROAD)
IN CONVERSE AND CAMPBELL COUNTIES,)
WYOMING)

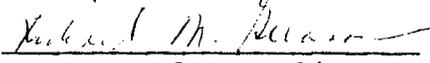
ENVIRONMENTAL IMPACT STATEMENT

Statement

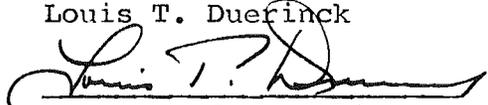
North Western and Burlington Northern contend that the granting of the application is not a major federal action which will significantly affect the quality of the human environment within the meaning of the National Environmental Policy Act of 1969.

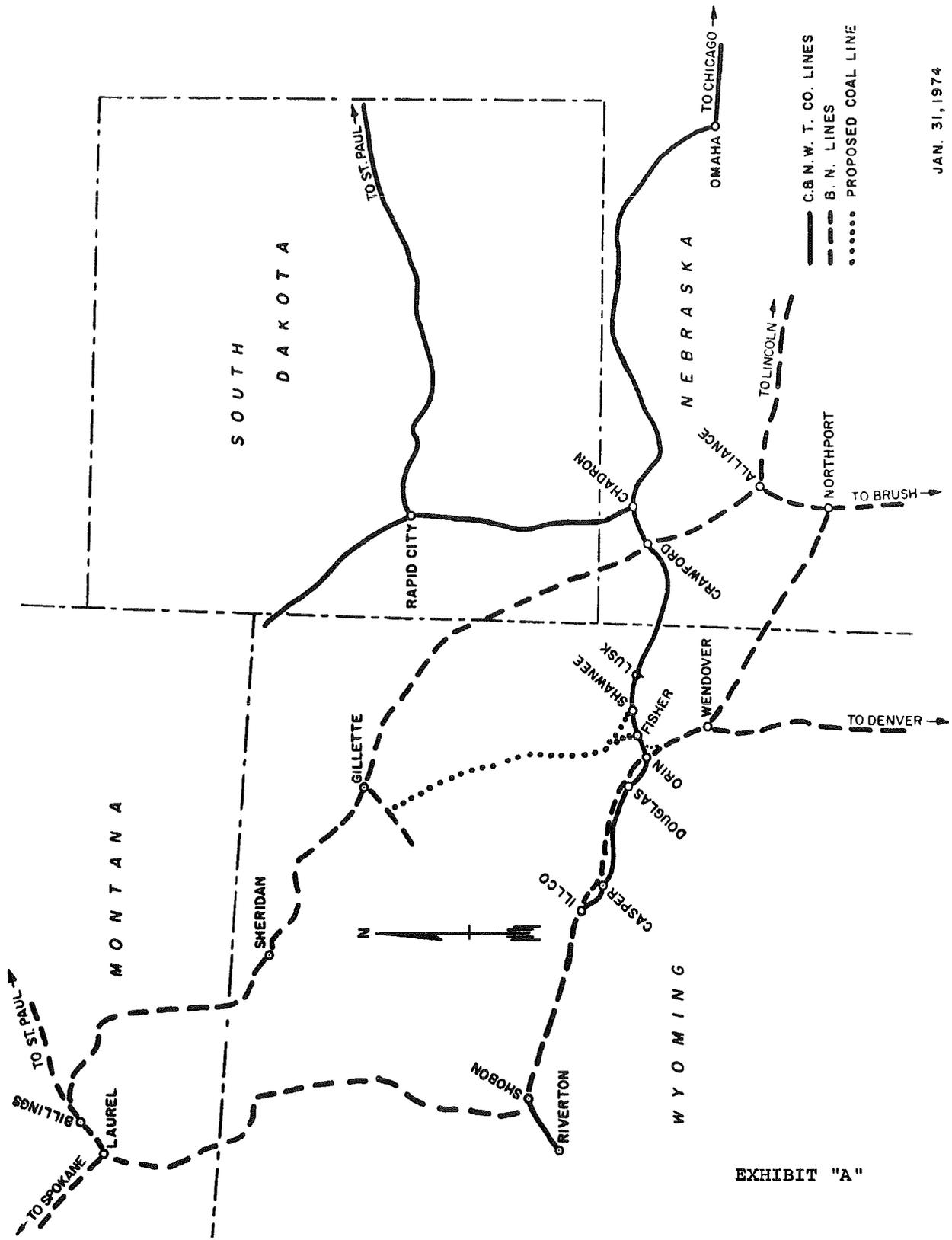
Respectfully submitted,

Richard M. Gleason


Attorney for Applicant
Burlington Northern Inc.
176 East Fifth Street
St. Paul, Minnesota 55101

Louis T. Duerfinck


Attorney for Applicant
Chicago and North Western
Transportation Company
400 West Madison Street
Chicago, Illinois 60606



JAN. 31, 1974

EXHIBIT "A"

CERTIFICATE OF SERVICE

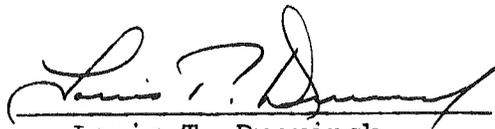
I hereby certify that I have this day, January 31, 1974, served the foregoing documents upon the following parties by mailing by first class United States mail a copy thereof, properly addressed, to each of them.

The Honorable Stanley K. Hathaway
Governor
State of Wyoming
State Capitol
Cheyenne, Wyoming 82001

Wyoming Public Service Commission
Supreme Court Building
Cheyenne, Wyoming 82001

Chairman
Council on Environmental Quality
722 Jackson Place
Washington, D.C. 20006

Director of Impact Statements Office
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460


Louis T. Duerinck

COAL LEASES

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Land Office

WYOMING

Serial Number

Wyoming 2313

COAL LEASE

(Unit 3 out of W-0321779)

This lease, entered into on the 1 day of December, 1966, by the United States of America, the lessor, through the Bureau of Land Management, and Paul F. Faust, 2806 S. St. Paul Street, Denver, Colorado 80210

RECEIVED
LAND OFFICE
SHERIDAN WYOMING

1966 NOV 11 2 27

pursuant and subject to the terms and provisions of the Act of February 25, 1920 (41 Stat. 437), as amended, hereinafter referred to as the Act, and to all reasonable regulations of the Secretary of the Interior now or hereafter in force which are made a part hereof,

AND pursuant and subject to the terms and provisions of the Acquired Lands Leasing Act of August 7, 1947, (61 Stat. 913), et seq.,
WITNESSETH:

Sec. 1. *Rights of Lessee.* The lessor, in consideration of the rents and royalties to be paid and the conditions to be observed as hereinafter set forth does hereby grant and lease to the lessee the exclusive right and privilege to mine and dispose of all the coal in the following-described tracts of land, situated in the State of Wyoming

T. 42 N., R. 70 W., 6th Prin. Mer.,
Sec. 2: Lots 1, 2, 3, 4, S $\frac{1}{2}$ N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$
Sec. 3: Lots 1, 2, 3, 4, S $\frac{1}{2}$ N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$

T. 43 N., R. 70 W., 6th Prin. Mer.
Sec. 17: All
Sec. 20: All
Sec. 21: All
Sec. 22: W $\frac{1}{2}$ W $\frac{1}{2}$, SE $\frac{1}{4}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SE $\frac{1}{4}$
Sec. 27: W $\frac{1}{2}$ E $\frac{1}{2}$, W $\frac{1}{2}$
Sec. 28: All
Sec. 29: NE $\frac{1}{4}$
Sec. 33: E $\frac{1}{2}$
Sec. 34: All
Sec. 35: W $\frac{1}{2}$, SE $\frac{1}{4}$

ACQUIRED LAND

T. 43 N., R. 70 W., 6th Prin. Mer.,
Sec. 22: NE $\frac{1}{4}$ SW $\frac{1}{4}$ 40 acres

containing 5,884.31 acres, more or less, together with the right to construct all such works, buildings, plants, structures, and appliances as may be necessary and convenient for the mining and preparation of the coal for market, the manufacture of coke or other products of coal, the housing and welfare of employees, and subject to the conditions herein provided, to use so much of the surface as may reasonably be required in the exercise of the rights and privileges herein granted.

Sec. 2. In consideration of the foregoing, the lessee hereby agrees:

(a) *Bond.* To maintain the bond furnished upon the issuance of this lease, which bond is conditioned upon compliance with all the provisions of the lease, and to increase the amount or furnish such other bond as may be required.

(b) *Rental.* To pay the lessor annually, in advance, for each acre or fraction thereof covered by this lease, beginning with the date hereof, the following rentals: 25 cents for the first year; 50 cents for the second, third, fourth, and fifth years, respectively; and \$1 for the sixth and each succeeding year during the continuance of the lease, such rental for any year to be credited against the first royalties as they accrue under the lease during the year for which the rental was paid.

(c) *Royalty.* To pay the lessor a royalty of cents on every ton of 2,000 pounds of coal mined during the first 20 years succeeding the execution of this lease. Royalties shall be payable quarterly within

30 days from the expiration of the quarter in which the coal is mined. For additional royalty terms see last page.

(d) *Minimum production.* Beginning with the sixth year of the lease, except when operations are interrupted by strikes, the elements, or casualties not attributable to the lessee, or unless on application and showing made, operations shall be suspended when market conditions are such that the lessee cannot operate except at a loss or suspended for the other reasons specified in Section 39 of the Act, to mine coal each year and pay a royalty thereon to a value of \$1 per acre or fraction thereof. Operations under this lease shall be continuous except in circumstances described or unless the lessee shall pay a royalty, less rent, on such minimum amount of the leased deposits, for one year in advance, in which case operations may be suspended for that year.

(e) *Payments.* To make rental payments to the Manager of the appropriate Land Office, except that when this lease becomes productive the rentals and

LAND OFFICE COPY

royalties shall be paid to the appropriate Regional Mining Supervisor of the United States Geological Survey, with whom all reports concerning operations under the lease shall be filed. All remittances to the Manager of the Land Office shall be made payable to the Bureau of Land Management, those to the Geological Survey shall be made payable to the United States Geological Survey.

(f) *Plats, reports, maps.* At such times and in such form as the lessor may prescribe, to furnish a plat showing development work and improvements on the leased lands and a report with respect to stockholders, investment, depreciation, and costs. To furnish in such form as the lessor may prescribe, within 30 days from the expiration of each quarter a report covering such quarter, certified by the superintendent of the mine, or by such other agent having personal knowledge of the facts as may be designated by the lessee for such purpose, showing the amount of leased deposits mined during the quarter, the character and quality thereof, amount of its products and byproducts disposed of and price received therefor, and amount in storage or held for sale. To keep and prepare maps of the leased lands in accordance with the appropriate regulations.

(g) *Weights.* To determine accurately the weight or quantity and quality of all leased deposits mined, and to enter accurately the weight or quantity and quality thereof in due form in books to be kept and preserved by the lessee for such purposes.

(b) *Inspection.* To permit at all reasonable times (1) inspection by any duly authorized officer of the Department, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease, if desired.

(i) *Assignment.* To file for approval in the appropriate Land Office within 90 days from the date of execution, any assignment or transfer made of this lease, whether by direct assignment, operating agreement, working or royalty interest, or otherwise. Such instrument will take effect the first day of the month following its approval by the Bureau of Land Management, or if the assignee requests, the first day of the month of approval. The showing required to be made with an assignment or transfer is set forth in the appropriate regulations.

See attached WSO 1510-5

(j) *Nondiscrimination clauses.* During the performance of this contract the lessee agrees as follows:

(1) The lessee will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The lessee will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The lessee agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The lessee will, in all solicitations or advertisements for employees placed by or on behalf of the lessee, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(3) The lessee will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the said labor union or workers' representative of the lessee's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The lessee will comply with all provisions of Executive Order No. 10925 of March 6, 1961, as amended, and of the rules, regulations, and relevant orders of the President's Committee on Equal Employment Opportunity created thereby.

(5) The lessee will furnish all information and reports required by Executive Order No. 10925 of March 6, 1961, as amended, and by the rules, regulations, and orders of the said Committee, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Committee for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the lessee's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this lease may be cancelled, terminated, or suspended in whole or in part and the lessee may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 10925 of March 6, 1961, as amended, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation, or order of the President's Committee on Equal Employment Opportunity, or as otherwise provided by law.

(7) The lessee will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the President's Committee on Equal Employment Opportunity issued pursuant to Section 303 of Executive Order No. 10925 of March 6, 1961, as amended, so that such provisions will be binding upon each subcontractor or vendor. The lessee will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however,* that in the event the lessee becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the lessee may request the United States to enter into such litigation to protect the interests of the United States.

(k) *Land disposed of with coal deposits reserved to the United States.* If the lands embraced herein have been or shall hereafter be disposed of under laws reserving to the United States the deposits of coal therein, to comply with all conditions as are or may hereafter be provided by the laws and regulations reserving such coal.

(l) *Operations, wages, freedom of purchase.* To comply with the appropriate operating regulations, to exercise reasonable diligence, skill, and care in the operations of the property, and to carry on all operations in accordance with approved methods and practices as provided in the operating regulations, having due regard for the prevention of injury to life, health or property, and of waste or damage to any water or mineral deposits; to fairly and justly weigh or measure the coal mined by each miner, to pay all wages due miners and employees, both above and below ground, at least twice each month in lawful money of the United States; to accord all miners and employees complete freedom of purchase; to restrict the workday to not exceeding eight hours in any one day for underground

workers, except in cases of emergency; to employ no boy under the age of sixteen and no girl or woman, without regard to age, in any mine below the surface; unless the laws of the State otherwise provide, in which case the State laws control.

(m) *Taxes.* To pay when due, all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, or other rights, property, or assets of the lessee.

(n) *Overriding royalties.* Not to create, by assignment or otherwise, an overriding royalty interest in excess of 50 percent of the rate of royalty first payable to the United States under this lease or an overriding royalty interest which when added to any other outstanding overriding royalty interest exceeds that percentage, excepting, that where an interest in the leasehold or in an operating agreement is assigned, the assignor may retain an overriding royalty interest in excess of the above limitation if he shows to the satisfaction of the Bureau of Land Management, that he has made substantial investments for improvements on the land covered by the assignment.

(o) *Delivery of premises in case of forfeiture.* In case of forfeiture of this lease, to deliver up to the lessor in good order and condition the land leased, including all buildings, and underground timbering and such other supports and structures as are necessary for the preservation of the mine or deposit.

Sec. 3. The lessor expressly reserves:

(a) *Rights reserved.* The right to permit for joint or several use such easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands containing the deposits described in the Act, and the treatment and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) *Disposition of surface.* The right to lease, sell, or otherwise dispose of the surface of the leased lands under existing law or laws hereafter enacted, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the coal therein, or to dispose of any resource in such lands which will not unreasonably interfere with operations under this lease.

(c) *Monopoly and fair prices.* Full power and authority to promulgate and enforce all the provisions of Section 30 of the Act to insure the sale of the production of said leased lands to the United States and to the public at reasonable prices, to prevent monopoly, and to safeguard the public welfare.

(d) *Readjustment of terms.* The right reasonably to readjust and fix royalties payable hereunder and other terms and conditions at the end of 20 years from the date hereof and thereafter at the end of each succeeding 20-year period during the continuance of this lease unless otherwise provided by law at the time of the expiration of any such period. Unless the lessee files objections to the proposed terms or a relinquishment of the lease within 30 days after receipt of the notice of proposed terms for a 20-year period, he will be deemed to have agreed to such terms.

(e) *Waiver of conditions.* The right to waive any breach of the conditions contained herein, except the breach of such conditions as are required by the Act, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the

lessor with respect to any future breach; nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

Sec. 4. *Relinquishment of lease.* Upon a satisfactory showing that the public interest will not be impaired, the lessee may surrender the entire lease or any legal subdivision thereof. A relinquishment *must* be filed in duplicate in the appropriate Land Office. Upon its acceptance it shall be effective as of the date it is filed, subject to the continued obligation of the lessee and his surety to make payment of all accrued rentals and royalties and to provide for the preservation of any mines or productive works or permanent improvements on the leased lands in accordance with the regulations and terms of the lease.

Sec. 5. *Protection of the surface, natural resources, and improvements.* The lessee agrees to take such reasonable steps as may be needed to prevent operations from unnecessarily: (1) causing or contributing to soil erosion or damaging any forage and timber growth thereon; (2) polluting the waters of springs, streams, wells, or reservoirs; (3) damaging crops, including forage, timber, or improvements of a surface owner; or (4) damaging range improvements whether owned by the United States or by its grazing permittees or lessees; and upon any partial or total relinquishment or the cancellation or expiration of this lease, or at any other time prior thereto when required by the lessor and to the extent deemed necessary by the lessor, to fill any sump holes, ditches and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land to its former condition, including the removal of structures as and if required. The lessor may prescribe the steps to be taken and restoration to be made with respect to lands of the United States and improvements thereon.

Sec. 6. *Removal of equipment, etc., on termination of lease.* Upon termination of this lease, by surrender or forfeiture, the lessee shall have the privilege at any time within a period of 90 days thereafter of removing from the premises all machinery, equipment, tools and materials, except underground timbering placed by the lessee in or on the leased lands, which are necessary for the preservation of the mine. Any materials, tools, appliances, machinery, structures, and equipment, subject to removal as above provided, which are allowed to remain on the leased lands shall become the property of the lessor on expiration of the 90-day period or such extension thereof as may be granted because of adverse climatic conditions, but the lessee shall remove any or all of such property where so directed by the lessor.

Sec. 7. *Proceedings in case of default.* If the lessee shall not comply with any of the provisions of the Act or the regulations thereunder or default in the performance or observance of any of the provisions of this lease, and such default shall continue for a period of 30 days after service of written notice thereof by the lessor, the lessor may institute appropriate proceedings in a court of competent jurisdiction for the forfeiture and cancellation of this lease as provided in Section 31 of the Act. If the lessee fails to take prompt and necessary steps to prevent loss or damage to the mine, property, or premises, or danger to the employees, the lessor may enter on the premises and take such measures as may be deemed necessary to prevent such loss or damage or to correct the dangerous or unsafe condition of the mine or works thereof, which shall be at the expense of the lessee. However, the lessee shall

not be held responsible for delays or casualties occasioned by causes beyond the lessee's control.

Sec. 8. *Heirs and successors in interest.* Each obligation hereunder shall extend to, and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

Sec. 9. *Unlawful interest.* No Member of, or Delegate to, Congress, or Resident Commissioner, after his

election or appointment, or either before or after he has qualified and during his continuance in office, and no officer, agent, or employee of the Department of the Interior, except as provided in 43 CFR 7.4(a)(1), shall be admitted to any share or part in this lease or derive any benefit that may arise therefrom; and the provisions of Section 3741 of the Revised Statutes of the United States, as amended (41 U.S.C. Sec. 22), and Sections 431, 432, and 433, Title 18, U.S.C., relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

THE UNITED STATES OF AMERICA

By *George S. Neuberg*
(Signing Officer)
George S. Neuberg
Assistant Manager, Mining

(Title)

November 21, 1966

(Date)

WITNESS TO SIGNATURE OF LESSEE

Paul Hunt
(Signature of Lessee)

(Signature of Lessee)

(Signature of Lessee)

(If this lease is executed by a corporation, it must bear the corporate seal)

(c) Royalty

To pay the lessor a royalty of 17½ cents a ton of 2,000 pounds for coal mined for the first 10 years of the lease and 20 cents a ton for the remainder of the first 20-year period succeeding the execution of this lease.

PH
Initial

10,000
St Paul Fire & Marine
Insurance Co.
Robert M. Lewis
655 Broadway Bldg.
Denver, Colo. 80203

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

STIPULATION FOR LANDS UNDER JURISDICTION OF DEPARTMENT OF AGRICULTURE *

The lands embraced in this lease or permit being under the jurisdiction of the Secretary of Agriculture, the lessee or permittee hereby agrees:

(1) To conduct all operations authorized by this lease or permit with due regard for good land management, not to cut or destroy timber without first obtaining permission from the authorized representative of the Secretary of Agriculture, and to pay for all such timber cut or destroyed at the rates prescribed by such representative; to avoid unnecessary damage to improvements, timber, crops, or other cover; unless otherwise authorized by the Secretary of Agriculture, not to drill any well, carry on operations, make excavations, construct tunnels, drill, or otherwise disturb the surface of the lands within 200 feet of any building standing on the lands and whenever required, in writing, by the authorized representative of the Secretary of Agriculture to fence or fill all sump holes, ditches, and other excavations, remove or cover all debris, and so far as reasonably possible, restore the surface of the lands to their former condition, including the removal of structures as and if required, and when required by such representative to bury all pipelines below plow depth.

(2) To do all in his power to prevent and suppress forest, brush, or grass fires on the lands and in their vicinity, and to require his employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. Unless prevented by circumstances over which he has no control, the lessee or permittee shall place his employees, contractors, subcontractors, and employees of contractors and subcontractors employed on the lands at the disposal of any authorized officer of the Department of Agriculture for the purpose of fighting forest, brush, or grass fires on or originating on the lands or on adjacent areas or caused by the negligence of the lessee or permittee or his employees, contractors, subcontractors and employees of contractors and subcontractors, with the understanding that payment for such services shall be made at rates to be determined by the authorized representative of the Secretary of

Agriculture, which rates shall not be less than the current rates of pay prevailing in the vicinity for services of a similar character. *Provided*, that if the lessee or permittee, his employees, contractors, subcontractors, or employees of contractors or subcontractors, caused or could have prevented the origin or spread of said fire or fires, no payment shall be made for services so rendered.

During periods of serious fire danger to forest, brush, or grass, as may be specified by the authorized representative of the Secretary of Agriculture, the lessee or permittee shall prohibit smoking and the building of camp and lunch fires by his employees, contractors, subcontractors, and employees of contractors or subcontractors within the area involved except at established camps, and shall enforce this prohibition by all means within his power: *Provided*, that the authorized representative of the Secretary of Agriculture may designate safe places where, after all inflammable material has been cleared away, campfires may be built for the purpose of heating lunches and where, at the option of the lessee or permittee, smoking may be permitted.

The lessee or permittee shall not burn rubbish, trash, or other inflammable materials *except* with the consent of the authorized representative of the Secretary of Agriculture and shall not use explosives in such a manner as to scatter inflammable materials on the surface of the lands during the forest, brush, or grass fire season, *except* as authorized to do so or on areas approved by such representative.

The lessee or permittee shall build or construct such fire lines or do such clearing on the lands as the authorized representative of the Secretary of Agriculture decides is essential for forest, brush, and grass fire prevention which is or may be necessitated by the

* This form of stipulation may be used in connection with leases and permits issued under the Acts of February 25, 1920, as amended (30 U.S.C. 181 *et seq.*); August 7, 1947 (30 U.S.C. 351 *et seq.*); February 7, 1927, as amended (30 U.S.C. 281 *et seq.*); April 17, 1926, as amended (30 U.S.C. 271 *et seq.*); October 20, 1914, as

amended (48 U.S.C. 432 *et seq.*); June 28, 1944 (58 Stat 463 *et seq.*); September 1, 1949 (30 U.S.C. 192c); June 30, 1950 (16 U.S.C. 508b); or under the authority of any of the Acts cited in Section 402 of the President's Reorganization Plan No. 3 of 1946 (5 U.S.C. 133y-16, Note).

exercise of the privileges authorized by this lease or permit, and shall maintain such fire tools at his headquarters or at the appropriate location on the lands as are deemed necessary by such representative.

(3) In the location, design, construction and maintenance of all authorized works, buildings, plants, waterways, roads, telegraph or telephone lines, pipelines, reservoirs, tanks, pumping stations, or other structures or clearance, the lessee or permittee shall do all things reasonably necessary to prevent or reduce to the fullest extent scarring and erosion of the lands, pollution of the water resources and any damage to the watershed. Where construction, operation, or maintenance of any of the facilities on or connected with this lease or permit causes damage to the watershed or pollution of the water resources, the lessee or permittee agrees to repair such damage and to take such corrective measures to prevent further pollution or damage to the watershed as are deemed necessary by the authorized representative of the Secretary of Agriculture.

(4) To pay the lessor or permitter or his tenant or the surface owner or his tenant, as the case may be, for any and all damage to or destruction of property caused by the lessee's or permittee's operations hereunder; to save and hold the lessor or permitter or the surface owner or their tenants harmless from all damage or claims for damage to persons or property resulting from the lessee's or permittee's operations under this lease or permit.

(5) To recognize existing uses and commitments, in the form of Department of Agriculture grazing, timber cutting, and special use permits, water developments, ditch, road, trail, pipeline, telephone line, and fence rights-of-way and other similar improvements, and to conduct his operations so as to interfere as little as possible with the rights and privileges granted by these permits or with other existing uses.

(6) To install and maintain cattle guards to prevent the passage of livestock in any openings made in fences by the lessee or permittee or his contractors to provide access to the lands covered by this lease or permit for automotive and other equipment.

(7) If lessee or permittee shall construct any camp on the lands, such camp shall be located at a place approved by the authorized representative of the Secretary of Agriculture, and such representative shall have authority to require that such camp be kept in a neat and sanitary condition.

(8) To comply with all the rules and regulations of the Secretary of Agriculture governing the national forests or other lands under his jurisdiction which are embraced in this lease or permit.

(9) Unless otherwise authorized, prior to the beginning of operations to appoint and maintain at all times during the term of this lease or permit a local agent upon whom may be served written orders or notices respecting matters contained in this stipulation, and to inform the authorized representative of the Secretary of Agriculture, in writing, of the name and address of such agent. If a substitute agent is appointed, the lessee or permittee shall immediately so inform the said representative.

(10) To address all matters relating to this stipulation to
District Ranger

at
213 North Second
Douglas, Wyoming 82633

who is the authorized representative of the Secretary of Agriculture, or to such other representative as may from time to time, be designated, provided that such designation shall be in writing and be delivered to the lessee or permittee or his agent.

(11) If all or any part of the lands lie within a municipal watershed, or are, in the opinion of the authorized representative of the Secretary of Agriculture, primarily valuable for watershed protection, the lessee or permittee shall reseed or otherwise restore the vegetative cover, as required by the authorized representative of the Secretary of Agriculture, for watershed protection and erosion prevention on any areas damaged because of the operation.



(Signature of Lessee)

SUPPLEMENTAL STIPULATION TO
STIPULATION FOR LANDS UNDER JURISDICTION OF DEPARTMENT OF AGRICULTURE

To be attached to and made a part of Form 3103-2.

A. Applicable to Exploration Activities

- 1 At least two weeks before beginning any exploration work, including access and work road location and construction, the lessee shall prepare a "Lessee Exploration Plan" with the District Ranger of Thunder Basin National Grasslands, Douglas, Wyoming. The plan shall be prepared in triplicate, including maps, for approval by the Forest Supervisor. Such approval will be conditioned on reasonable requirements needed to prevent soil erosion, water pollution, and unnecessary damages to the surface vegetation and other resources of the United States and to provide for the restoration of the land surface and vegetation. The plan shall contain all such provisions as the Forest Service may deem necessary to maintain proper management of the lands and resources within the exploration area.

Where appropriate, depending upon the location and type of operation, the Forest Supervisor may require the plan to contain, at a minimum, the following items:

- (a) The location, construction specifications, maintenance program, and estimated use by the lessee, his employees and agents, of all access and work roads.
- (b) The location and extent of any and all areas to be occupied during the explorations.
- (c) The methods to be used in the explorations, including disposal of waste material.
- (d) The size and type of equipment to be used in the explorations.
- (e) The capacity, size, character, standards of construction and location of all structures and facilities to be constructed.
- (f) Typical profiles of cuts and fills of all areas to be graded for the installation of structures and facilities.
- (g) The location and size of areas upon which vegetation will be destroyed and/or soil laid bare and the steps which will be taken to prevent and control soil erosion thereon, including but not limited to the proposed program for rehabilitation and revegetation of these disturbed lands both during and upon cessation of explorations.
- (h) The steps which will be taken to prevent water pollution.

- (i) The character, amount, and time of use of explosives or fire, including safety precautions which will be taken during their use.
- (j) The coordination and rehabilitation measures that will be taken to protect other uses of the land, permitted livestock, and wildlife:

If later explorations require departure from or additions to the approved plan, these revisions or amendments, together with justification statement for proposed revisions, will be submitted to the District Ranger for approval of the Forest Supervisor.

Any and all operations conducted in advance of approval of an original, revised, or amended exploration plan, or which are not in accord with an approved plan, constitute a violation of the terms of this lease and the Forest Service reserves the right to close down explorations until such corrective action, as is deemed necessary, is taken by the lessee.

2. To guarantee the successful rehabilitation and revegetation of abandoned exploration sites, roads and other disturbed areas, as provided for in the "Lessee Exploration Plan," paragraph (1) above, the lessee will furnish the Forest Service a surety bond in the amount of Ten Thousand and No/100 Dollars (\$10,000.00) prior to undertaking any work on the lease area. Provided that, in the event the work is conducted in separate phases, each phase will be covered by a separate bond in the minimum amount of Ten Thousand and No/100 Dollars (\$10,000.00) before the start of any work on each phase. In lieu of surety bond, the lessee may deposit into a Federal Depository cash, through the Unit Collection Officer, Medicine Bow National Forest, or negotiable securities through the Regional Fiscal Agent, U. S. Forest Service, Bldg. 85, Denver Federal Center, Denver, Colorado 80225 in the amounts stated above or each separately bonded phase area. As soon as the lease area has been successfully rehabilitated and revegetated and approved in writing by the Forest Supervisor, surety will be notified, or cash deposits returned without interest, or securities returned without interest. The lessee agrees that all monies or deposits in lieu thereof, deposited under this authority may be retained by the United States to cover the cost of any said restoration and rehabilitation rendered necessary by failure of the lessee to fulfill all and singular the requirements assumed hereunder without prejudice whatever to any other rights and remedies of the United States.
3. No occupancy of the surface of the following areas is authorized by this lease. The lessee is, however, authorized to employ directional drilling to explore the mineral resources under these areas provided that such drilling or other works will not disturb the surface area or otherwise interfere with their use by the Forest Service. It is understood and agreed that the use of these areas for National Forest purposes is superior to any other use. The excluded areas are:

- (a) Within the normal highwater line of any and all lakes, ponds, and reservoirs located within the lease area.
- (b) Within 200 feet of the normal highwater line of any and all live streams in the area.
- (c) Within 400 feet of any and all springs and wells within the lease area.
- (d) Within 400 feet of any improvements either owned, permitted, leased or otherwise authorized by the Forest Service.

The distances in subparagraphs (a), (b), (c), and (d), may be reduced when specifically agreed to in the exploration plan, and paragraph (1).

B. Applicable to Production (operation) Activities

1. The lessee, before the start of any mining operations, agrees to enter into such additional specific stipulations with the Forest Service covering the lessee's mining operations as are deemed necessary and appropriate, depending upon the mining methods to be used and current mining and restoration technology, to meet the following land management principles:
 - (a) Maintain and protect the areas which will be either directly or indirectly affected by the lessee's mining operations to minimize the effect on grazing capabilities.
 - (b) Install structures and facilities and revegetate disturbed areas to protect the soil from excessive erosion and return the land to a usable condition.
 - (c) Take all measures reasonably necessary to minimize the pollution and contamination of the surface and subsurface water sources.
 - (d) Protect, insofar as is practicable, improvements owned or authorized by the Forest Service, and restore or replace these said improvements in event they must be destroyed or disturbed by the lessee's mining operations.
2. The lessee shall prepare in triplicate and submit an annual operating plan to the Forest Supervisor which will include as a minimum:
 - (a) The mining operating areas and the methods of operation planned for each area.
 - (b) The areas to be treated and details of the rehabilitation and revegetation measures to be initiated in the planning year to meet the stipulated requirements of the Forest Service.

- (c) The location and construction specifications of all roads necessary for the mining operation during the planning year.
 - (d) The steps to be taken to minimize water pollution and soil erosion.
 - (e) The correlation of the mining operations with the Forest Service's use and management of the lands not included in that year's operating plan.
3. The lessee shall submit to the Forest Supervisor an annual progress map and report of mining, restoration, and revegetation operations.
 4. The lessee shall furnish performance bonds as required by the Forest Supervisor to guarantee fulfillment of the stipulations, entered under (1) above, and the operating plans, prepared under (2) above.
 5. The Forest Service reserves the right to amend, alter, or otherwise change during the life of the lease, any and all stipulations necessary to meet the land management principles outlined in paragraph (1) above provided that before any such amendments, alterations, and other changes are made, the lessee shall be invited to make any comments as he may deem necessary and, provided further, that no such amendments, alterations, and changes in these stipulations shall be made unless agreed to in writing by the lessee and the Forest Service.
 6. The Forest Service reserves the right to manage and use all lands administered by it which are embraced within the lease for such purposes as they may deem desirable, provided, that this use and management shall not interfere or conflict with the current mining operations of the lessee.



Lessee Signature

WSO 1510-5
(Dec. '65)

EQUAL OPPORTUNITY

Non-discrimination clauses, regarding "Equal Opportunity", in the attached permit/lease are amended by deleting references to the President's Committee on Equal Employment Opportunity, Executive Order No. 10925 of March 6, 1961, as amended, and Section 303 of Executive Order No. 10925 of March 6, 1961, as amended; and substituting therefor the Secretary of Labor, Executive Order No. 11246 of September 24, 1965, and Section 204 of Executive Order No. 11246 of September 24, 1965, respectively.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Land Office Serial Number

WYOMING

COAL LEASE

W-5036

This lease, entered into on **DEC 1 - 1967**, by the United States of America, the lessor,

through the Bureau of Land Management, and **Humble Oil & Refining Company**
P. O. Box 2180
Houston, Texas 77001

the lessee, pursuant and subject to the terms and provisions of the Act of February 25, 1920 (41 Stat. 437) as amended, hereinafter referred to as the Act, and to all reasonable regulations of the Secretary of the Interior now or hereafter in force which are made a part hereof.

WITNESSETH:

Sec. 1. *Rights of Lessee.* The lessor, in consideration of the rents and royalties to be paid and the conditions to be observed as hereinafter set forth does hereby grant and lease to the lessee the exclusive right and privilege to mine and dispose of all the coal in the following-described tracts of land, situated in the State of **Wyoming**

- T. 51 N., R. 72 W., 6th Prin. Mer.
- Sec. 3: $S\frac{1}{2}NW\frac{1}{4}, SW\frac{1}{4}$
- Sec. 4: All
- Sec. 5: $S\frac{1}{2}N\frac{1}{2}, S\frac{1}{2}$
- Sec. 6: Lots 1, 2, 3, 4, 5, 6, 7, $SE\frac{1}{4}NE\frac{1}{4}, SE\frac{1}{4}NW\frac{1}{4}, E\frac{1}{2}SW\frac{1}{4}, SE\frac{1}{4}$
- Sec. 9: All
- Sec. 10: All
- Sec. 11: All
- Sec. 14: All
- Sec. 15: $N\frac{1}{2}, N\frac{1}{2}E\frac{1}{2}$
- T. 52 N., R. 72 W., 6th Prin. Mer.
- Sec. 31: $S\frac{1}{2}SE\frac{1}{4}$
- Sec. 33: $W\frac{1}{2}, W\frac{1}{2}SE\frac{1}{4}$

containing **5,457.47** acres, more or less, together with the right to construct all such works, buildings, plants, structures, and appliances as may be necessary and convenient for the mining and preparation of the coal for market, the manufacture of coke or other products of coal, the housing and welfare of employees, and subject to the conditions herein provided, to use so much of the surface as may reasonably be required in the exercise of the rights and privileges herein granted.

Sec. 2. In consideration of the foregoing, the lessee hereby agrees:

(a) *Bond.* To maintain the bond furnished upon the issuance of this lease, which bond is conditioned upon compliance with all the provisions of the lease, and to increase the amount or furnish such other bond as may be required.

(b) *Rental.* To pay the lessor annually, in advance, for each acre or fraction thereof covered by this lease, beginning with the date hereof, the following rentals: 25 cents for the first year; 50 cents for the second, third, fourth, and fifth years, respectively; and \$1 for the sixth and each succeeding year during the continuance of the lease, such rental for any year to be credited against the first royalties as they accrue under the lease during the year for which the rental was paid.

(c) *Royalty.* To pay the lessor a royalty of cents on every ton of 2,000 pounds of coal mined during the first 20 years succeeding the execution of this lease. Royalties shall be payable quarterly within

30 days from the expiration of the quarter in which the coal is mined. **For additional royalty terms see last page.**

(d) *Minimum production.* Beginning with the sixth year of the lease, *except* when operations are interrupted by strikes, the elements, or casualties not attributable to the lessee, or unless on application and showing made, operations shall be suspended when market conditions are such that the lessee cannot operate *except* at a loss or suspended for the other reasons specified in Section 39 of the Act, to mine coal each year and pay a royalty thereon to a value of \$1 per acre or fraction thereof. Operations under this lease shall be continuous *except* in circumstances described or unless the lessee shall pay a royalty, less rent, on such minimum amount of the leased deposits, for one year in advance, in which case operations may be suspended for that year.

(e) *Payments.* To make rental payments to the Manager of the appropriate Land Office, *except* that when this lease becomes productive the rentals and

ORIGINAL

royalties shall be paid to the appropriate regional mining supervisor of the United States Geological Survey, with whom all reports concerning operations under the lease shall be filed. All remittances to the manager of the land office shall be made payable to the Bureau of Land Management, those to the Geological Survey shall be made payable to the United States Geological Survey.

(f) *Plats, reports, maps.* At such times and in such form as the lessor may prescribe, to furnish a plat showing development work and improvements on the leased lands and a report with respect to stockholders, investment, depreciation, and costs. To furnish in such form as the lessor may prescribe, within 30 days from the expiration of each quarter a report covering such quarter, certified by the superintendent of the mine, or by such other agent having personal knowledge of the facts as may be designated by the lessee for such purpose, showing the amount of leased deposits mined during the quarter, the character and quality thereof, amount of its products and byproducts disposed of and price received therefor, and amount in storage or held for sale. To keep and prepare maps of the leased lands in accordance with the appropriate regulations.

(g) *Weights.* To determine accurately the weight or quantity and quality of all leased deposits mined, and to enter accurately the weight or quantity and quality thereof in due form in books to be kept and preserved by the lessee for such purposes.

(h) *Inspection.* To permit at all reasonable times (1) inspection by any duly authorized officer of the Department, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease, if desired.

(i) *Assignment.* To file for approval in the appropriate land office within 90 days from the date of execution, any assignment or transfer made of this lease, whether by direct assignment, operating agreement, working or royalty interest, or otherwise. Such instrument will take effect the first day of the month following its approval by the Bureau of Land Management, or if the assignee requests, the first day of the month of approval. The showing required to be made with an assignment or transfer is set forth in the appropriate regulations.

(j) *Equal Opportunity clause.* During the performance of this contract the lessee agrees as follows:

(1) The lessee will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The lessee will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The lessee agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The lessee will, in all solicitations or advertisements for employees placed by or on behalf of the lessee, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(3) The lessee will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the lessee's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The lessee will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The lessee will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the lessee's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the lessee may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The lessee will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The lessee will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: *Provided, however,* That in the event the lessee becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the lessee may request the United States to enter into such litigation to protect the interest of the United States.

(k) *Land disposed of with coal deposits reserved to the United States.* If the lands embraced herein have been or shall hereafter be disposed of under laws reserving to the United States the deposits of coal therein, to comply with all conditions as are or may hereafter be provided by the laws and regulations reserving such coal.

(l) *Operations, wages, freedom of purchase.* To comply with the appropriate operating regulations, to exercise reasonable diligence, skill, and care in the operations of the property, and to carry on all operations in accordance with approved methods and practices as provided in the operating regulations, having due regard for the prevention of injury to life, health or property, and of waste or damage to any water or mineral deposits; to fairly and justly weigh or measure the coal mined by each miner, to pay all wages due miners and employees, both above and below ground, at least twice each month in lawful money of the United States; to accord all miners and employees complete freedom of purchase; to restrict the workday to not exceeding eight hours in any one day for underground

workers, except in cases of emergency to employ no boy under the age of sixteen and no girl or woman, without regard to age, in any mine below the surface; unless the laws of the State otherwise provide, in which case the State laws control.

(m) *Taxes.* To pay when due, all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, or other rights, property, or assets of the lessee.

(n) *Overriding royalties.* Not to create, by assignment or otherwise, an overriding royalty interest in excess of 50 percent of the rate of royalty first payable to the United States under this lease or an overriding royalty interest which when added to any other outstanding overriding royalty interest exceeds that percentage, excepting, that where an interest in the leasehold or in an operating agreement is assigned, the assignor may retain an overriding royalty interest in excess of the above limitation if he shows to the satisfaction of the Bureau of Land Management, that he has made substantial investments for improvements on the land covered by the assignment.

(o) *Delivery of premises in case of forfeiture.* In case of forfeiture of this lease, to deliver up to the lessor in good order and condition the land leased, including all buildings, and underground timbering and such other supports and structures as are necessary for the preservation of the mine or deposit.

Sec. 3. The lessor expressly reserves:

(a) *Rights reserved.* The right to permit for joint or several use such easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands containing the deposits described in the act, and the treatment and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) *Disposition of surface.* The right to lease, sell, or otherwise dispose of the surface of the leased lands under existing law or laws hereafter enacted, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the coal therein, or to dispose of any resource in such lands which will not unreasonably interfere with operations under this lease.

(c) *Monopoly and fair prices.* Full power and authority to promulgate and enforce all the provisions of section 30 of the act to insure the sale of the production of said leased lands to the United States and to the public at reasonable prices, to prevent monopoly, and to safeguard the public welfare.

(d) *Readjustment of terms.* The right reasonably to readjust and fix royalties payable hereunder and other terms and conditions at the end of 20 years from the date hereof and thereafter at the end of each succeeding 20-year period during the continuance of this lease unless otherwise provided by law at the time of the expiration of any such period. Unless the lessee files objections to the proposed terms or a relinquishment of the lease within 30 days after receipt of the notice of proposed terms for a 20-year period, he will be deemed to have agreed to such terms.

(e) *Waiver of conditions.* The right to waive any breach of the conditions contained herein, except the breach of such conditions as are required by the act, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the

lessor with respect to any future breach; nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

Sec. 4. *Relinquishment of lease.* Upon a satisfactory showing that the public interest will not be impaired, the lessee may surrender the entire lease or any legal subdivision thereof. A relinquishment must be filed in duplicate in the appropriate land office. Upon its acceptance it shall be effective as of the date it is filed, subject to the continued obligation of the lessee and his surety to make payment of all accrued rentals and royalties and to provide for the preservation of any mines or productive works or permanent improvements on the leased lands in accordance with the regulations and terms of the lease.

Sec. 5. *Protection of the surface, natural resources, and improvements.* The lessee agrees to take such reasonable steps as may be needed to prevent operations, including operation of operating plants on the leased premises, from unnecessarily: (1) causing or contributing to soil erosion or damaging any forage and timber growth on the leased lands or on Federal or non-Federal lands in the vicinity; (2) polluting air and water; (3) damaging crops, including forage, timber, or improvements of a surface owner; (4) damaging improvements whether owned by the United States or by its permittees or lessees; or (5) destroying, damaging, or removing fossils, historic or prehistoric ruins, or artifacts; and upon any partial or total relinquishment or the cancellation or expiration of this lease, or at any other time prior thereto when required and to the extent deemed necessary by the lessor to fill any sump holes, ditches, and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land and access roads to its former condition, including the removal of structures as and if required. The lessor may prescribe the steps to be taken and restoration to be made with respect to the leased lands and improvements thereon, whether or not owned by the United States.

Sec. 6. *Removal of equipment, etc., on termination of lease.* Upon termination of this lease, by surrender or forfeiture, the lessee shall have the privilege at any time within a period of 90 days thereafter of removing from the premises all machinery, equipment, tools and materials, except underground timbering placed by the lessee in or on the leased lands, which are necessary for the preservation of the mine. Any materials, tools, appliances, machinery, structures, and equipment, subject to removal as above provided, which are allowed to remain on the leased lands shall become the property of the lessor on expiration of the 90-day period or such extension thereof as may be granted because of adverse climatic conditions, but the lessee shall remove any or all of such property where so directed by the lessor.

Sec. 7. *Proceedings in case of default.* If the lessee shall not comply with any of the provisions of the act or the regulations thereunder or default in the performance or observance of any of the provisions of this lease, and such default shall continue for a period of 30 days after service of written notice thereof by the lessor, the lessor may institute appropriate proceedings in a court of competent jurisdiction for the forfeiture and cancellation of this lease as provided in section 31 of the act. If the lessee fails to take prompt and necessary steps to prevent loss or damage to the mine, property, or premises, or danger to the employees, the lessor may enter on the premises and take such measures as may be deemed necessary to prevent such loss or damage or to correct the dangerous or unsafe condition of the mine or works thereof, which shall be at the expense of the lessee. However, the lessee shall

not be held responsible for delays or casualties occasioned by causes beyond the lessee's control.

Sec. 8. *Heirs and successors in interest.* Each obligation hereunder shall extend to, and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

Sec. 9. *Unlawful interest.* No Member of, or Delegate to, Congress, or Resident Commissioner, after his

election or appointment, or either before or after he has qualified and during his continuance in office, and no officer, agent, or employee of the Department of the Interior, except as provided in 43 CFR 7.4(a)(1), shall be admitted to any share or part in this lease or derive any benefit that may arise therefrom; and the provisions of Section 3741 of the Revised Statutes of the United States, as amended (41 U.S.C. Sec. 22), and Sections 431, 432, and 433, Title 18, U.S.C., relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

THE UNITED STATES OF AMERICA

By *Daniel Y. Moskyter*
(Signing Officer)
Daniel Y. Moskyter
Assistant Manager, Mining
(Title)

NOV 17 1967
(Date)

WITNESS TO SIGNATURE OF LESSEE

Attest *C. H. Woodman*
ASSISTANT SECRETARY

HUMBLE OIL & REFINING COMPANY

G. H. Shipley
(Signature of Lessee)
G. H. Shipley, Vice President

O. K. as to
transmission
of this lease
form *C. C. S.*

(Signature of Lessee)

(Signature of Lessee)

(If this lease is executed by a corporation, it must bear the corporate seal)

(c) **Royalty:**

To pay the lessor a royalty of 17½ cents a ton of 2,000 pounds for coal mined for the first 10 years of the lease and 20 cents a ton for the remainder of the first 20 year period succeeding the execution of this lease.

MS
Initial

Special Stipulation:

The lessee will notify the District Manager, Bureau of Land Management, 300 North Center Street, Casper, Wyoming, of his plans for mining prior to commencement of any operations.

MS
Initial

O. K. as to
transmission
of this lease
form *C. C. S.*

Lease and Permit Amendment

CONDITIONS FOR THE PROTECTION OF
THE SURFACE, NATURAL RESOURCES, AND IMPROVEMENTS

The lessee/permittee agrees to take such reasonable steps as may be needed to prevent operations from unnecessarily: (1) causing or contributing to soil erosion or damaging any forage and timber growth thereon, or on Federal and non-Federal lands in the vicinity; (2) polluting water; (3) damaging crops, including forage, timber, or improvements of a surface owner; or (4) damaging improvements whether owned by the United States or by its permittees or lessees; and upon any partial or total relinquishment or the cancellation or expiration of this lease, or at any other time prior thereto when required and to the extent deemed necessary by the lessor, to fill any sump holes, ditches, and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land and access roads to their former condition, including the removal of structures as and if required. The lessor may prescribe the steps to be taken and restoration to be made, with respect to lands of the United States and improvements thereon.

HUMBLE OIL & REFINING COMPANY
Lessee/Permittee

By *G. H. Shipley*
G. H. Shipley

Vice President
Title

O. K. as to *guc RDS*
transaction
O. K. as to
Form *R. C. J.*

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COAL LEASE

922
Land Office Serial Number
WYOMING
W-23928

This lease, entered into on **SEP 1 1970**, by the United States of America, the lessor,
through the Bureau of Land Management, and **Kerr-McGee Corporation**
Kerr-McGee Building
Oklahoma City, Oklahoma 73102

, the lessee,
pursuant and subject to the terms and provisions of the act of February 25, 1920 (41 Stat. 437), as amended, hereinafter referred to as the act, and to all reasonable regulations of the Secretary of the Interior now or hereafter in force which are made a part hereof,

WITNESSETH:

Sec. 1. *Rights of Lessee.* The lessor, in consideration of the rents and royalties to be paid and the conditions to be observed as hereinafter set forth does hereby grant and lease to the lessee the exclusive right and privilege to mine and dispose of all the coal in the following-described tracts of land, situated in the State of **Wyoming**

- T. 43 N., R. 69 W., 6th P.M.,
 - Sec. 6: Lot 7
 - Sec. 7: Lots 1, 2, 3, E $\frac{1}{2}$ NW $\frac{1}{4}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$
- T. 43 N., R. 70 W., 6th P.M.,
 - Sec. 1: Lots 2, 3, 4, S $\frac{1}{2}$ N $\frac{1}{2}$, S $\frac{1}{2}$
 - Sec. 2: All
 - Sec. 3: All
 - Sec. 10: All
 - Sec. 11: N $\frac{1}{2}$, NE $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$
 - Sec. 12: N $\frac{1}{2}$, E $\frac{1}{2}$ SE $\frac{1}{4}$
 - Sec. 14: SW $\frac{1}{4}$ NW $\frac{1}{4}$, S $\frac{1}{2}$ SW $\frac{1}{4}$
 - Sec. 15: N $\frac{1}{2}$, N $\frac{1}{2}$ S $\frac{1}{2}$

containing **4,191.84** acres, more or less, together with the right to construct all such works, buildings, plants, structures, and appliances as may be necessary and convenient for the mining and preparation of the coal for market, the manufacture of coke or other products of coal, the housing and welfare of employees, and subject to the conditions herein provided, to use so much of the surface as may reasonably be required in the exercise of the rights and privileges herein granted.

Sec. 2. In consideration of the foregoing, the lessee hereby agrees:

(a) *Bond.* To maintain the bond furnished upon the issuance of this lease, which bond is conditioned upon compliance with all the provisions of the lease, and to increase the amount or furnish such other bond as may be required.

(b) *Rental.* To pay the lessor annually, in advance, for each acre or fraction thereof covered by this lease, beginning with the date hereof, the following rentals: 25 cents for the first year; 50 cents for the second, third, fourth, and fifth years, respectively; and \$1 for the sixth and each succeeding year during the continuance of the lease, such rental for any year to be credited against the first royalties as they accrue under the lease during the year for which the rental was paid.

For additional rental terms, see last page.

(c) *Royalty.* To pay the lessor a royalty of cents on every ton of 2,000 pounds of coal mined during the first 20 years succeeding the execution of this lease. Royalties shall be payable quarterly within

30 days from the expiration of the quarter in which the coal is mined. **For additional royalty terms, see last page.**

(d) *Minimum production.* Beginning with the sixth year of the lease, *except* when operations are interrupted by strikes, the elements, or casualties not attributable to the lessee, or unless on application and showing made, operations shall be suspended when market conditions are such that the lessee cannot operate *except* at a loss or suspended for the other reasons specified in section 39 of the act, to mine coal each year and pay a royalty thereon to a value of \$1 per acre or fraction thereof. Operations under this lease shall be continuous *except* in circumstances described or unless the lessee shall pay a royalty, less rent, on such minimum amount of the leased deposits, for one year in advance, in which case operations may be suspended for that year.

(e) *Payments.* To make rental payments to the manager of the appropriate land office, *except* that when this lease becomes productive the rentals and

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royalties shall be paid to the appropriate Regional Mining Supervisor of the United States Geological Survey, with whom all reports concerning operations under the lease shall be filed. All remittances to the Manager of the Land Office shall be made payable to the Bureau of Land Management, those to the Geological Survey shall be made payable to the United States Geological Survey.

(f) *Plats, reports, maps.* At such times and in such form as the lessor may prescribe, to furnish a plat showing development work and improvements on the leased lands and a report with respect to stockholders, investment, depreciation, and costs. To furnish in such form as the lessor may prescribe, within 30 days from the expiration of each quarter a report covering such quarter, certified by the superintendent of the mine, or by such other agent having personal knowledge of the facts as may be designated by the lessee for such purpose, showing the amount of leased deposits mined during the quarter, the character and quality thereof, amount of its products and byproducts disposed of and price received therefor, and amount in storage or held for sale. To keep and prepare maps of the leased lands in accordance with the appropriate regulations.

(g) *Weights.* To determine accurately the weight or quantity and quality of all leased deposits mined, and to enter accurately the weight or quantity and quality thereof in due form in books to be kept and preserved by the lessee for such purposes.

(h) *Inspection.* To permit at all reasonable times (1) inspection by any duly authorized officer of the Department, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease, if desired.

(i) *Assignment.* To file for approval in the appropriate Land Office within 90 days from the date of execution, any assignment or transfer made of this lease, whether by direct assignment, operating agreement, working or royalty interest, or otherwise. Such instrument will take effect the first day of the month following its approval by the Bureau of Land Management, or if the assignee requests, the first day of the month of approval. The showing required to be made with an assignment or transfer is set forth in the appropriate regulations.

(j) *Equal Opportunity clause.* During the performance of this contract the lessee agrees as follows:

(1) The lessee will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The lessee will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The lessee agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The lessee will, in all solicitations or advertisements for employees placed by or on behalf of the lessee, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(3) The lessee will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the lessee's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The lessee will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The lessee will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the lessee's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the lessee may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The lessee will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The lessee will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: *Provided, however,* That in the event the lessee becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the lessee may request the United States to enter into such litigation to protect the interest of the United States.

(k) *Land disposed of with coal deposits reserved to the United States.* If the lands embraced herein have been or shall hereafter be disposed of under laws reserving to the United States the deposits of coal therein, to comply with all conditions as are or may hereafter be provided by the laws and regulations reserving such coal.

(l) *Operations, wages, freedom of purchase.* To comply with the appropriate operating regulations, to exercise reasonable diligence, skill, and care in the operations of the property, and to carry on all operations in accordance with approved methods and practices as provided in the operating regulations, having due regard for the prevention of injury to life, health or property, and of waste or damage to any water or mineral deposits; to fairly and justly weigh or measure the coal mined by each miner, to pay all wages due miners and employees, both above and below ground, at least twice each month in lawful money of the United States; to accord all miners and employees complete freedom of purchase; to restrict the workday to not exceeding eight hours in any one day for underground

workers, except in cases of emergency; to employ no boy under the age of sixteen and no girl or woman, without regard to age, in any mine below the surface; unless the laws of the State otherwise provide, in which case the State laws control.

(m) *Taxes.* To pay when due, all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, or other rights, property, or assets of the lessee.

(n) *Overriding royalties.* Not to create, by assignment or otherwise, an overriding royalty interest in excess of 50 percent of the rate of royalty first payable to the United States under this lease or an overriding royalty interest which when added to any other outstanding overriding royalty interest exceeds that percentage, excepting, that where an interest in the leasehold or in an operating agreement is assigned, the assignor may retain an overriding royalty interest in excess of the above limitation if he shows to the satisfaction of the Bureau of Land Management, that he has made substantial investments for improvements on the land covered by the assignment.

(o) *Delivery of premises in case of forfeiture.* In case of forfeiture of this lease, to deliver up to the lessor in good order and condition the land leased, including all buildings, and underground timbering and such other supports and structures as are necessary for the preservation of the mine or deposit.

Sec. 3. The lessor expressly reserves:

(a) *Rights reserved.* The right to permit for joint or several use such easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands containing the deposits described in the Act, and the treatment and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) *Disposition of surface.* The right to lease, sell, or otherwise dispose of the surface of the leased lands under existing law or laws hereafter enacted, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the coal therein, or to dispose of any resource in such lands which will not unreasonably interfere with operations under this lease.

(c) *Monopoly and fair prices.* Full power and authority to promulgate and enforce all the provisions of Section 30 of the Act to insure the sale of the production of said leased lands to the United States and to the public at reasonable prices, to prevent monopoly, and to safeguard the public welfare.

(d) *Readjustment of terms.* The right reasonably to readjust and fix royalties payable hereunder and other terms and conditions at the end of 20 years from the date hereof and thereafter at the end of each succeeding 20-year period during the continuance of this lease unless otherwise provided by law at the time of the expiration of any such period. Unless the lessee files objections to the proposed terms or a relinquishment of the lease within 30 days after receipt of the notice of proposed terms for a 20-year period, he will be deemed to have agreed to such terms.

(e) *Waiver of conditions.* The right to waive any breach of the conditions contained herein, except the breach of such conditions as are required by the Act, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the

lessor with respect to any future breach; nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

Sec. 4. *Relinquishment of lease.* Upon a satisfactory showing that the public interest will not be impaired, the lessee may surrender the entire lease or any legal subdivision thereof. A relinquishment *must* be filed in duplicate in the appropriate Land Office. Upon its acceptance it shall be effective as of the date it is filed, subject to the continued obligation of the lessee and his surety to make payment of all accrued rentals and royalties and to provide for the preservation of any mines or productive works or permanent improvements on the leased lands in accordance with the regulations and terms of the lease.

Sec. 5. *Protection of the surface, natural resources, and improvements.* The lessee agrees to take such reasonable steps as may be needed to prevent operations from unnecessarily: (1) causing or contributing to soil erosion or damaging any forage and timber growth thereon; (2) polluting the waters of springs, streams, wells, or reservoirs; (3) damaging crops, including forage, timber, or improvements of a surface owner; or (4) damaging range improvements whether owned by the United States or by its grazing permittees or lessees; and upon any partial or total relinquishment or the cancellation or expiration of this lease, or at any other time prior thereto when required by the lessor and to the extent deemed necessary by the lessor, to fill any sump holes, ditches and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land to its former condition, including the removal of structures as and if required. The lessor may prescribe the steps to be taken and restoration to be made with respect to lands of the United States and improvements thereon.

Sec. 6. *Removal of equipment, etc., on termination of lease.* Upon termination of this lease, by surrender or forfeiture, the lessee shall have the privilege at any time within a period of 90 days thereafter of removing from the premises all machinery, equipment, tools and materials, except underground timbering placed by the lessee in or on the leased lands, which are necessary for the preservation of the mine. Any materials, tools, appliances, machinery, structures, and equipment, subject to removal as above provided, which are allowed to remain on the leased lands shall become the property of the lessor on expiration of the 90-day period or such extension thereof as may be granted because of adverse climatic conditions, but the lessee shall remove any or all of such property where so directed by the lessor.

Sec. 7. *Proceedings in case of default.* If the lessee shall not comply with any of the provisions of the Act or the regulations thereunder or default in the performance or observance of any of the provisions of this lease, and such default shall continue for a period of 30 days after service of written notice thereof by the lessor, the lessor may institute appropriate proceedings in a court of competent jurisdiction for the forfeiture and cancellation of this lease as provided in Section 31 of the Act. If the lessee fails to take prompt and necessary steps to prevent loss or damage to the mine, property, or premises, or danger to the employees, the lessor may enter on the premises and take such measures as may be deemed necessary to prevent such loss or damage or to correct the dangerous or unsafe condition of the mine or works thereof, which shall be at the expense of the lessee. However, the lessee shall

not be held responsible for delays or casualties occasioned by causes beyond the lessee's control.

Sec. 8. *Heirs and successors in interest.* Each obligation hereunder shall extend to, and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

Sec. 9. *Unlawful interest.* No Member of, or Delegate to, Congress, or Resident Commissioner, after his

election or appointment, or either before or after he has qualified and during his continuance in office, and no officer, agent, or employee of the Department of the Interior, except as provided in 43 CFR 7.4(a)(1), shall be admitted to any share or part in this lease or derive any benefit that may arise therefrom; and the provisions of section 3741 of the Revised Statutes of the United States, as amended (41 U.S.C. Sec. 22), and sections 431, 432, and 433, Title 18, U.S.C., relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

THE UNITED STATES OF AMERICA

By *Daniel Y. Marcher*
(Signing Officer)

Daniel Y. Marcher
Assistant Manager, Mining
(Title)

AUG 14 1970
(Date)

WITNESS TO SIGNATURE OF LESSEE

KERR-McGEE CORPORATION
(Signature of Lessee)

ATTEST:

By: *J. C. Finley* ADMITTED
LAW DEPT.
(Signature of Lessee)
J. C. Finley, Vice President

Clark W. Finley
Asst. Secretary

(Signature of Lessee)

(If this lease is executed by a corporation, it must bear the corporate seal)

(b) **Rental.** If by the end of the fifth lease year production royalty for any lease year has not equalled or exceeded \$5 an acre, or fraction thereof, the rental for the sixth and each succeeding year shall be increased from \$1 to \$5 an acre, or fraction thereof, until such time as production royalty for any lease year equals or exceeds the latter amount, whereupon the rental shall revert to \$1 an acre, or fraction thereof.

JK
Initial

(c) **Royalty.** To pay the lessor a royalty of 17½ cents a ton of 2,000 pounds for the first 10 years of the lease, and 20 cents a ton of 2,000 pounds for the remainder of the first 20-year period succeeding the date of this lease.

JK
Initial

Bond in sum of \$ 40,000.00
with Continental Casualty Co.
as surety filed.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

W-23928

STIPULATION FOR LANDS UNDER JURISDICTION OF DEPARTMENT OF AGRICULTURE *

The lands embraced in this lease or permit being under the jurisdiction of the Secretary of Agriculture, the lessee or permittee hereby agrees:

(1) To conduct all operations authorized by this lease or permit with due regard for good land management, not to cut or destroy timber without first obtaining permission from the authorized representative of the Secretary of Agriculture, and to pay for all such timber cut or destroyed at the rates prescribed by such representative; to avoid unnecessary damage to improvements, timber, crops, or other cover; unless otherwise authorized by the Secretary of Agriculture, not to drill any well, carry on operations, make excavations, construct tunnels, drill, or otherwise disturb the surface of the lands within 200 feet of any building standing on the lands and whenever required, in writing, by the authorized representative of the Secretary of Agriculture to fence or fill all sump holes, ditches, and other excavations, remove or cover all debris, and so far as reasonably possible, restore the surface of the lands to their former condition, including the removal of structures as and if required, and when required by such representative to bury all pipelines below plow depth.

(2) To do all in his power to prevent and suppress forest, brush, or grass fires on the lands and in their vicinity, and to require his employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. Unless prevented by circumstances over which he has no control, the lessee or permittee shall place his employees, contractors, subcontractors, and employees of contractors and subcontractors employed on the lands at the disposal of any authorized officer of the Department of Agriculture for the purpose of fighting forest, brush, or grass fires on or originating on the lands or on adjacent areas or caused by the negligence of the lessee or permittee or his employees, contractors, subcontractors and employees of contractors and subcontractors, with the understanding that payment for such services shall be made at rates to be determined by the authorized representative of the Secretary of

Agriculture, which rates shall not be less than the current rates of pay prevailing in the vicinity for services of a similar character: *Provided*, that if the lessee or permittee, his employees, contractors, subcontractors, or employees of contractors or subcontractors, caused or could have prevented the origin or spread of said fire or fires, no payment shall be made for services so rendered.

During periods of serious fire danger to forest, brush, or grass, as may be specified by the authorized representative of the Secretary of Agriculture, the lessee or permittee shall prohibit smoking and the building of camp and lunch fires by his employees, contractors, subcontractors, and employees of contractors or subcontractors within the area involved except at established camps, and shall enforce this prohibition by all means within his power: *Provided*, that the authorized representative of the Secretary of Agriculture may designate safe places where, after all inflammable material has been cleared away, campfires may be built for the purpose of heating lunches and where, at the option of the lessee or permittee, smoking may be permitted.

The lessee or permittee shall not burn rubbish, trash, or other inflammable materials *except* with the consent of the authorized representative of the Secretary of Agriculture and shall not use explosives in such a manner as to scatter inflammable materials on the surface of the lands during the forest, brush, or grass fire season, *except* as authorized to do so or on areas approved by such representative.

The lessee or permittee shall build or construct such fire lines or do such clearing on the lands as the authorized representative of the Secretary of Agriculture decides is essential for forest, brush, and grass fire prevention which is or may be necessitated by the

* This form of stipulation may be used in connection with leases and permits issued under the Acts of February 25, 1920, as amended (30 U.S.C. 181 *et seq.*); August 7, 1947 (30 U.S.C. 351 *et seq.*); February 7, 1927, as amended (30 U.S.C. 281 *et seq.*); April 17, 1926, as amended (30 U.S.C. 271 *et seq.*); October 20, 1914, as

amended (48 U.S.C. 432 *et seq.*); June 28, 1944 (58 Stat 463 *et seq.*); September 1, 1949 (30 U.S.C. 192c); June 30, 1950 (16 U.S.C. 508b); or under the authority of any of the Acts cited in Section 402 of the President's Reorganization Plan No. 3 of 1946 (5 U.S.C. 133y-16, Note).

exercise of the privileges authorized by this lease or permit, and shall maintain such fire tools at his headquarters or at the appropriate location on the lands as are deemed necessary by such representative.

(3) In the location, design, construction and maintenance of all authorized works, buildings, plants, waterways, roads, telegraph or telephone lines, pipelines, reservoirs, tanks, pumping stations, or other structures or clearance, the lessee or permittee shall do all things reasonably necessary to prevent or reduce to the fullest extent scarring and erosion of the lands, pollution of the water resources and any damage to the watershed. Where construction, operation, or maintenance of any of the facilities on or connected with this lease or permit causes damage to the watershed or pollution of the water resources, the lessee or permittee agrees to repair such damage and to take such corrective measures to prevent further pollution or damage to the watershed as are deemed necessary by the authorized representative of the Secretary of Agriculture.

(4) To pay the lessor or permitter or his tenant or the surface owner or his tenant, as the case may be, for any and all damage to or destruction of property caused by the lessee's or permittee's operations hereunder; to save and hold the lessor or permitter or the surface owner or their tenants harmless from all damage or claims for damage to persons or property resulting from the lessee's or permittee's operations under this lease or permit.

(5) To recognize existing uses and commitments, in the form of Department of Agriculture grazing, timber cutting, and special use permits, water developments, ditch, road, trail, pipeline, telephone line, and fence rights-of-way and other similar improvements, and to conduct his operations so as to interfere as little as possible with the rights and privileges granted by these permits or with other existing uses.

(6) To install and maintain cattle guards to prevent the passage of livestock in any openings made in fences by the lessee or permittee or his contractors to provide access to the lands covered by this lease or permit for automotive and other equipment.

(7) If lessee or permittee shall construct any camp on the lands, such camp shall be located at a place approved by the authorized representative of the Secretary of Agriculture, and such representative shall have authority to require that such camp be kept in a neat and sanitary condition.

(8) To comply with all the rules and regulations of the Secretary of Agriculture governing the national forests or other lands under his jurisdiction which are embraced in this lease or permit.

(9) Unless otherwise authorized, prior to the beginning of operations to appoint and maintain at all times during the term of this lease or permit a local agent upon whom may be served written orders or notices respecting matters contained in this stipulation, and to inform the authorized representative of the Secretary of Agriculture, in writing, of the name and address of such agent. If a substitute agent is appointed, the lessee or permittee shall immediately so inform the said representative.

(10) To address all matters relating to this stipulation to

Forest Supervisor

U. S. Forest Service

at
Medicine Lake National Forest
Laramie, Wyoming 82070

who is the authorized representative of the Secretary of Agriculture, or to such other representative as may from time to time, be designated, provided that such designation shall be in writing and be delivered to the lessee or permittee or his agent.

(11) If all or any part of the lands lie within a municipal watershed, or are, in the opinion of the authorized representative of the Secretary of Agriculture, primarily valuable for watershed protection, the lessee or permittee shall reseed or otherwise restore the vegetative cover, as required by the authorized representative of the Secretary of Agriculture, for watershed protection and erosion prevention on any areas damaged because of the operation.

KERR-McGEE CORPORATION

By: _____

(Signature of Lessee)
J. C. Finley, Vice President

GPO 844-923

~~W-7456~~
W-23928

SUPPLEMENTAL STIPULATION TO
STIPULATION FOR LANDS UNDER JURISDICTION OF DEPARTMENT OF AGRICULTURE

To be attached to and made a part of Form 3103-2.

A. Applicable to Exploration Activities

1. At least two weeks before beginning any exploration work, including access and work road location and construction, the lessee shall prepare a "Lessee Exploration Plan" with the District Ranger, Alvin Paul Williams. The plan shall be prepared in triplicate, including maps, for approval by the Forest Supervisor. Such approval will be conditioned on reasonable requirements needed to prevent soil erosion, water pollution, and unnecessary damages to the surface vegetation and other resources of the United States and to provide for the restoration of the land surface and vegetation. The plan shall contain all such provisions as the Forest Service may deem necessary to maintain proper management of the lands and resources within the exploration area.

Where appropriate, depending upon the location and type of operation, the Forest Supervisor may require the plan to contain, at a minimum, the following items:

- (a) The location, construction specifications, maintenance program, and estimated use by the lessee, his employees and agents, of all access and work roads.
- (b) The location and extent of any and all areas to be occupied during the explorations.
- (c) The methods to be used in the explorations, including disposal of waste material.
- (d) The size and type of equipment to be used in the explorations.
- (e) The capacity, size, character, standards of construction and location of all structures and facilities to be constructed.
- (f) Typical profiles of cuts and fills of all areas to be graded for the installation of structures and facilities.
- (g) The location and size of areas upon which vegetation will be destroyed and/or soil laid bare and the steps which will be taken to prevent and control soil erosion thereon, including but not limited to the proposed program for rehabilitation and revegetation of these disturbed lands both during and upon cessation of explorations.
- (h) The steps which will be taken to prevent water pollution.

- (i) The character, amount, and time of use of explosives or fire, including safety precautions which will be taken during their use.
- (j) The coordination and rehabilitation measures that will be taken to protect other uses of the land, permitted livestock, and wildlife.

If later explorations require departures from or additions to the approved plan, these revisions or amendments, together with justification statement for proposed revisions, will be submitted to the District Ranger for approval of the Forest Supervisor.

Any and all operations conducted in advance of approval of an original, revised, or amended exploration plan, or which are not in accord with an approved plan, constitute a violation of the terms of this lease and the Forest Service reserves the right to close down explorations until such corrective action, as is deemed necessary, is taken by the lessee.

2. To guarantee the successful rehabilitation and revegetation of abandoned exploration sites, roads and other disturbed areas, as provided for in the "Lessee Exploration Plan," (paragraph 1) above, the lessee will furnish the Forest Service a surety bond in the amount of \$16,000 prior to undertaking any work on the lease area. Provided that, in the event the work is conducted in separate phases, each phase will be covered by a separate bond in the minimum amount of \$16,000 before the start of any work on each phase. In lieu of surety bond, the lessee may deposit into a Federal Depository cash, through the Unit Collection Officer, Walden Flow National Forest, or negotiable securities through the Regional Fiscal Agent, U. S. Forest Service, Bldg. 35, Denver Federal Center, Denver, Colorado 80225 in the amounts stated above or each separately bonded phase area. As soon as the lease area has been successfully rehabilitated and revegetated and approved in writing by the Forest Supervisor, surety will be notified, or cash deposits returned without interest, or securities returned without interest. The lessee agrees that all monies or deposits in lieu thereof, deposited under this authority may be retained by the United States to cover the cost of any said restoration and rehabilitation rendered necessary by failure of the lessee to fulfill all and singular the requirements assumed hereunder without prejudice whatever to any other rights and remedies of the United States.
3. No occupancy of the surface of the following areas is authorized by this lease. The lessee is, however, authorized to employ directional drilling to explore the mineral resources under these areas provided that such drilling or other works will not disturb the surface area or otherwise interfere with their use by the Forest

Service. It is understood and agreed that the use of these areas for National Forest purposes is superior to any other use. The excluded areas are:

- (a) Within the normal highwater line of any and all lakes, ponds, and reservoirs located within the lease area.
- (b) Within 200 feet of the normal highwater line of any and all live streams in the area.
- (c) Within 400 feet of any and all springs and wells within the lease area.
- (d) Within 400 feet of any improvements either owned, permitted, leased, or otherwise authorized by the Forest Service.

The distances in subparagraphs (a), (b), (c), and (d) may be reduced when specifically agreed to in the exploration plan, (paragraph 1).

B. Applicable to Production (operation) Activities

- 1. The lessee, before the start of any mining operations, agrees to enter into such additional specific stipulations with the Forest Service covering the lessee's mining operations as are deemed necessary and appropriate, depending upon the mining methods to be used and current mining and restoration technology, to meet the following land management principles:
 - (a) Maintain and protect the areas which will be either directly or indirectly affected by the lessee's mining operations to minimize the effect on grazing capabilities.
 - (b) Install structures and facilities and revegetate disturbed areas to protect the soil from excessive erosion and return the land to a usable condition.
 - (c) Take all measures reasonably necessary to minimize the pollution and contamination of the surface and subsurface water sources.
 - (d) Protect, insofar as is practicable, improvements owned or authorized by the Forest Service, and restore or replace these said improvements in event they must be destroyed or disturbed by the lessee's mining operations.

Such stipulations will be developed jointly by the lessee; representatives of the Branch of Mining Operations Conservation Division, U. S. Geological Survey; and the Supervisor,

Medicine Bow, Forest Service.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EQUAL OPPORTUNITY IN EMPLOYMENT
CERTIFICATION OF NONSEGREGATED FACILITIES

Bid, offer or contract number or
other identification:

W-23928

By the submission of this bid or offer and/or by entering into this contract, the bidder, offeror, lessee, subcontractor, or applicant certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means, but is not limited to, any waiting rooms, work areas, rest rooms and wash rooms, restaurants and

other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that he will retain such certifications in his files; and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT
FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities, as required by the May 9, 1967, order (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the

provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

In accordance with 41 CFR 60, as amended May 19, 1967, and Executive Order No. 11246 of September 24, 1965, this certification is applicable to all bids, offers, contracts and subcontracts as well as agreements with applicants who are themselves performing federally assisted contracts, which may exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity clause of the Order.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

COAL LEASE

922
Land Office Serial Number
WYOMING
W-24710 (Acquired)

This lease, entered into on **SEP 1 1970** by the United States of America, the lessor,
through the Bureau of Land Management, and **Kerr McGee Corporation**
Kerr-McGee Building
Oklahoma City, Oklahoma 73102

Acquired Lands Leasing Act of August 7, 1947,
(61 Stat. 913; 30 U.S.C. 351 et seq.) the lessee,
pursuant and subject to the terms and provisions of the ~~act of February 26, 1920 (41 Stat. 437)~~, as amended, herein-
after referred to as the act, and to all reasonable regulations of the Secretary of the Interior now or hereafter in force
which are made a part hereof,

WITNESSETH:

Sec. 1. *Rights of Lessee.* The lessor, in consideration of the rents and royalties to be paid and the conditions to be
observed as hereinafter set forth does hereby grant and lease to the lessee the exclusive right and privilege to mine
and dispose of all the coal in the following-described tracts of land, situated in the State of **Wyoming**

T. 43 N., R. 70 W., 6th P.M.,
Sec. 12: N $\frac{1}{2}$ SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$

containing **160.00** acres, more or less, together with the right to construct all such works, buildings, plants,
structures, and appliances as may be necessary and convenient for the mining and preparation of the coal for market,
the manufacture of coke or other products of coal, the housing and welfare of employees, and subject to the conditions
herein provided, to use so much of the surface as may reasonably be required in the exercise of the rights and privi-
leges herein granted.

Sec. 2. In consideration of the foregoing, the lessee
hereby agrees:

(a) *Bond.* To maintain the bond furnished upon
the issuance of this lease, which bond is conditioned
upon compliance with all the provisions of the lease,
and to increase the amount or furnish such other bond
as may be required.

(b) *Rental.* To pay the lessor annually, in ad-
vance, for each acre or fraction thereof covered by this
lease, beginning with the date hereof, the following
rentals: 25 cents for the first year; 50 cents for the
second, third, fourth, and fifth years, respectively; and
\$1 for the sixth and each succeeding year during the
continuance of the lease, such rental for any year to be
credited against the first royalties as they accrue under
the lease during the year for which the rental was paid.
For additional rental terms, see last page.

(c) *Royalty.* To pay the lessor a royalty of
cents on every ton of 2,000 pounds of coal mined during
the first 20 years succeeding the execution of this
lease. Royalties shall be payable quarterly within

30 days from the expiration of the quarter in which the
coal is mined. **For additional royalty terms,
see last page.**

(d) *Minimum production.* Beginning with the sixth
year of the lease, *except* when operations are inter-
rupted by strikes, the elements, or casualties not
attributable to the lessee, or unless on application and
showing made, operations shall be suspended when
market conditions are such that the lessee cannot op-
erate *except* at a loss or suspended for the other
reasons specified in section 39 of the act, to mine coal
each year and pay a royalty thereon to a value of \$1 per
acre or fraction thereof. Operations under this lease
shall be continuous *except* in circumstances described
or unless the lessee shall pay a royalty, less rent, on
such minimum amount of the leased deposits, for one
year in advance, in which case operations may be
suspended for that year.

(e) *Payments.* To make rental payments to the
manager of the appropriate land office, *except* that
when this lease becomes productive the rentals and

ORIGINAL

royalties shall be paid to the appropriate Regional Mining Supervisor of the United States Geological Survey, with whom all reports concerning operations under the lease shall be filed. All remittances to the Manager of the Land Office shall be made payable to the Bureau of Land Management, those to the Geological Survey shall be made payable to the United States Geological Survey.

(f) *Plats, reports, maps.* At such times and in such form as the lessor may prescribe, to furnish a plat showing development work and improvements on the leased lands and a report with respect to stockholders, investment, depreciation, and costs. To furnish in such form as the lessor may prescribe, within 30 days from the expiration of each quarter a report covering such quarter, certified by the superintendent of the mine, or by such other agent having personal knowledge of the facts as may be designated by the lessee for such purpose, showing the amount of leased deposits mined during the quarter, the character and quality thereof, amount of its products and byproducts disposed of and price received therefor, and amount in storage or held for sale. To keep and prepare maps of the leased lands in accordance with the appropriate regulations.

(g) *Weights.* To determine accurately the weight or quantity and quality of all leased deposits mined, and to enter accurately the weight or quantity and quality thereof in due form in books to be kept and preserved by the lessee for such purposes.

(h) *Inspection.* To permit at all reasonable times (1) inspection by any duly authorized officer of the Department, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease, if desired.

(i) *Assignment.* To file for approval in the appropriate Land Office within 90 days from the date of execution, any assignment or transfer made of this lease, whether by direct assignment, operating agreement, working or royalty interest, or otherwise. Such instrument will take effect the first day of the month following its approval by the Bureau of Land Management, or if the assignee requests, the first day of the month of approval. The showing required to be made with an assignment or transfer is set forth in the appropriate regulations.

(j) *Nondiscrimination clauses.* During the performance of this contract the lessee agrees as follows:

(1) The lessee will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The lessee will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The lessee agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The lessee will, in all solicitations or advertisements for employees placed by or on behalf of the lessee, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(3) The lessee will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the said labor union or workers' representative of the lessee's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The lessee will comply with all provisions of Executive Order No. 10925 of March 6, 1961, as amended, and of the rules, regulations, and relevant orders of the President's Committee on Equal Employment Opportunity created thereby.

(5) The lessee will furnish all information and reports required by Executive Order No. 10925 of March 6, 1961, as amended, and by the rules, regulations, and orders of the said Committee, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Committee for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the lessee's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this lease may be cancelled, terminated, or suspended in whole or in part and the lessee may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 10925 of March 6, 1961, as amended, and such other sanctions may be imposed and remedies invoked as provided in the said Executive Order or by rule, regulation, or order of the President's Committee on Equal Employment Opportunity, or as otherwise provided by law.

(7) The lessee will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the President's Committee on Equal Employment Opportunity issued pursuant to Section 303 of Executive Order No. 10925 of March 6, 1961, as amended, so that such provisions will be binding upon each subcontractor or vendor. The lessee will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however,* that in the event the lessee becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the lessee may request the United States to enter into such litigation to protect the interests of the United States.

(k) *Land disposed of with coal deposits reserved to the United States.* If the lands embraced herein have been or shall hereafter be disposed of under laws reserving to the United States the deposits of coal therein, to comply with all conditions as are or may hereafter be provided by the laws and regulations reserving such coal.

(l) *Operations, wages, freedom of purchase.* To comply with the appropriate operating regulations, to exercise reasonable diligence, skill, and care in the operations of the property, and to carry on all operations in accordance with approved methods and practices as provided in the operating regulations, having due regard for the prevention of injury to life, health or property, and of waste or damage to any water or mineral deposits; to fairly and justly weigh or measure the coal mined by each miner, to pay all wages due miners and employees, both above and below ground, at least twice each month in lawful money of the United States; to accord all miners and employees complete freedom of purchase; to restrict the workday to not exceeding eight hours in any one day for underground

workers, except in cases of emergency; to employ no boy under the age of sixteen and no girl or woman, without regard to age, in any mine below the surface; unless the laws of the State otherwise provide, in which case the State laws control.

(m) *Taxes.* To pay when due, all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, or other rights, property, or assets of the lessee.

(n) *Overriding royalties.* Not to create, by assignment or otherwise, an overriding royalty interest in excess of 50 percent of the rate of royalty first payable to the United States under this lease or an overriding royalty interest which when added to any other outstanding overriding royalty interest exceeds that percentage, excepting, that where an interest in the leasehold or in an operating agreement is assigned, the assignor may retain an overriding royalty interest in excess of the above limitation if he shows to the satisfaction of the Bureau of Land Management, that he has made substantial investments for improvements on the land covered by the assignment.

(o) *Delivery of premises in case of forfeiture.* In case of forfeiture of this lease, to deliver up to the lessor in good order and condition the land leased, including all buildings, and underground timbering and such other supports and structures as are necessary for the preservation of the mine or deposit.

Sec. 3. The lessor expressly reserves:

(a) *Rights reserved.* The right to permit for joint or several use such easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands containing the deposits described in the Act, and the treatment and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) *Disposition of surface.* The right to lease, sell, or otherwise dispose of the surface of the leased lands under existing law or laws hereafter enacted, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the coal therein, or to dispose of any resource in such lands which will not unreasonably interfere with operations under this lease.

(c) *Monopoly and fair prices.* Full power and authority to promulgate and enforce all the provisions of Section 30 of the Act to insure the sale of the production of said leased lands to the United States and to the public at reasonable prices, to prevent monopoly, and to safeguard the public welfare.

(d) *Readjustment of terms.* The right reasonably to readjust and fix royalties payable hereunder and other terms and conditions at the end of 20 years from the date hereof and thereafter at the end of each succeeding 20-year period during the continuance of this lease unless otherwise provided by law at the time of the expiration of any such period. Unless the lessee files objections to the proposed terms or a relinquishment of the lease within 30 days after receipt of the notice of proposed terms for a 20-year period, he will be deemed to have agreed to such terms.

(e) *Waiver of conditions.* The right to waive any breach of the conditions contained herein, except the breach of such conditions as are required by the Act, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the

lessor with respect to any future breach; nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

Sec. 4. *Relinquishment of lease.* Upon a satisfactory showing that the public interest will not be impaired, the lessee may surrender the entire lease or any legal subdivision thereof. A relinquishment *must* be filed in duplicate in the appropriate Land Office. Upon its acceptance it shall be effective as of the date it is filed, subject to the continued obligation of the lessee and his surety to make payment of all accrued rentals and royalties and to provide for the preservation of any mines or productive works or permanent improvements on the leased lands in accordance with the regulations and terms of the lease.

Sec. 5. *Protection of the surface, natural resources, and improvements.* The lessee agrees to take such reasonable steps as may be needed to prevent operations from unnecessarily: (1) causing or contributing to soil erosion or damaging any forage and timber growth thereon; (2) polluting the waters of springs, streams, wells, or reservoirs; (3) damaging crops, including forage, timber, or improvements of a surface owner; or (4) damaging range improvements whether owned by the United States or by its grazing permittees or lessees; and upon any partial or total relinquishment or the cancellation or expiration of this lease, or at any other time prior thereto when required by the lessor and to the extent deemed necessary by the lessor, to fill any sump holes, ditches and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land to its former condition, including the removal of structures as and if required. The lessor may prescribe the steps to be taken and restoration to be made with respect to lands of the United States and improvements thereon.

Sec. 6. *Removal of equipment, etc., on termination of lease.* Upon termination of this lease, by surrender or forfeiture, the lessee shall have the privilege at any time within a period of 90 days thereafter of removing from the premises all machinery, equipment, tools and materials, except underground timbering placed by the lessee in or on the leased lands, which are necessary for the preservation of the mine. Any materials, tools, appliances, machinery, structures, and equipment, subject to removal as above provided, which are allowed to remain on the leased lands shall become the property of the lessor on expiration of the 90-day period or such extension thereof as may be granted because of adverse climatic conditions, but the lessee shall remove any or all of such property where so directed by the lessor.

Sec. 7. *Proceedings in case of default.* If the lessee shall not comply with any of the provisions of the Act or the regulations thereunder or default in the performance or observance of any of the provisions of this lease, and such default shall continue for a period of 30 days after service of written notice thereof by the lessor, the lessor may institute appropriate proceedings in a court of competent jurisdiction for the forfeiture and cancellation of this lease as provided in Section 31 of the Act. If the lessee fails to take prompt and necessary steps to prevent loss or damage to the mine, property, or premises, or danger to the employees, the lessor may enter on the premises and take such measures as may be deemed necessary to prevent such loss or damage or to correct the dangerous or unsafe condition of the mine or works thereof, which shall be at the expense of the lessee. However, the lessee shall

not be held responsible for delays or casualties occasioned by causes beyond the lessee's control.

Sec. 8. *Heirs and successors in interest.* Each obligation hereunder shall extend to, and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

Sec. 9. *Unlawful interest.* No Member of, or Delegate to, Congress, or Resident Commissioner, after his

election or appointment, or either before or after he has qualified and during his continuance in office, and no officer, agent, or employee of the Department of the Interior, except as provided in 43 CFR 7.4(a)(1), shall be admitted to any share or part in this lease or derive any benefit that may arise therefrom; and the provisions of section 3741 of the Revised Statutes of the United States, as amended (41 U.S.C. Sec. 22), and sections 431, 432, and 433, Title 18, U.S.C., relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

THE UNITED STATES OF AMERICA

By *Daniel Y. Maschter*
(Signing Officer)

Daniel Y. Maschter
Assistant Manager, Mining
(Title)

WITNESS TO SIGNATURE OF LESSEE

~~XXXXXXXXXXXX~~ AUG 14 1970
(Date)

KERR-McGEE CORPORATION
(Signature of Lessee)

ATTEST: _____

By: _____
(Signature of Lessee)
J. C. Finley, Vice President

FORM APPROVED
DF
LAW DEPT.

Barbara G. Dunley
Asst. Secretary

(Signature of Lessee)

(If this lease is executed by a corporation, it must bear the corporate seal)

(b) Rental. If by the end of the fifth lease year production royalty for any lease year has not equalled or exceeded \$5 an acre, or fraction thereof, the rental for the sixth and each succeeding year shall be increased from \$1 to \$5 an acre, or fraction thereof, until such time as production royalty for any lease year equals or exceeds the latter amount, whereupon the rental shall revert to \$1 an acre, or fraction thereof.

Initial

(c) Royalty. To pay the lessor a royalty of 17½ cents a ton of 2,000 pounds for the first 10 years of the lease, and 20 cents a ton of 2,000 pounds for the remainder of the first 20-year period succeeding the date of this lease.

Initial

Bond in sum of \$ 75,000.00
with Chas. ...
as surety filed.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Director of the Bureau
AUG 14 1970

W-24710

STIPULATION FOR LANDS UNDER JURISDICTION OF DEPARTMENT OF AGRICULTURE *

The lands embraced in this lease or permit being under the jurisdiction of the Secretary of Agriculture, the lessee or permittee hereby agrees:

(1) To conduct all operations authorized by this lease or permit with due regard for good land management, not to cut or destroy timber without first obtaining permission from the authorized representative of the Secretary of Agriculture, and to pay for all such timber cut or destroyed at the rates prescribed by such representative; to avoid unnecessary damage to improvements, timber, crops, or other cover; unless otherwise authorized by the Secretary of Agriculture, not to drill any well, carry on operations, make excavations, construct tunnels, drill, or otherwise disturb the surface of the lands within 200 feet of any building standing on the lands and whenever required, in writing, by the authorized representative of the Secretary of Agriculture to fence or fill all sump holes, ditches, and other excavations, remove or cover all debris, and so far as reasonably possible, restore the surface of the lands to their former condition, including the removal of structures as and if required, and when required by such representative to bury all pipelines below plow depth.

(2) To do all in his power to prevent and suppress forest, brush, or grass fires on the lands and in their vicinity, and to require his employees, contractors, subcontractors, and employees of contractors or subcontractors to do likewise. Unless prevented by circumstances over which he has no control, the lessee or permittee shall place his employees, contractors, subcontractors, and employees of contractors and subcontractors employed on the lands at the disposal of any authorized officer of the Department of Agriculture for the purpose of fighting forest, brush, or grass fires on or originating on the lands or on adjacent areas or caused by the negligence of the lessee or permittee or his employees, contractors, subcontractors and employees of contractors and subcontractors, with the understanding that payment for such services shall be made at rates to be determined by the authorized representative of the Secretary of

Agriculture, which rates shall not be less than the current rates of pay prevailing in the vicinity for services of a similar character: *Provided*, that if the lessee or permittee, his employees, contractors, subcontractors, or employees of contractors or subcontractors, caused or could have prevented the origin or spread of said fire or fires, no payment shall be made for services so rendered.

During periods of serious fire danger to forest, brush, or grass, as may be specified by the authorized representative of the Secretary of Agriculture, the lessee or permittee shall prohibit smoking and the building of camp and lunch fires by his employees, contractors, subcontractors, and employees of contractors or subcontractors within the area involved except at established camps, and shall enforce this prohibition by all means within his power: *Provided*, that the authorized representative of the Secretary of Agriculture may designate safe places where, after all inflammable material has been cleared away, campfires may be built for the purpose of heating lunches and where, at the option of the lessee or permittee, smoking may be permitted.

The lessee or permittee shall not burn rubbish, trash, or other inflammable materials *except* with the consent of the authorized representative of the Secretary of Agriculture and shall not use explosives in such a manner as to scatter inflammable materials on the surface of the lands during the forest, brush, or grass fire season, *except* as authorized to do so or on areas approved by such representative.

The lessee or permittee shall build or construct such fire lines or do such clearing on the lands as the authorized representative of the Secretary of Agriculture decides is essential for forest, brush, and grass fire prevention which is or may be necessitated by the

* This form of stipulation may be used in connection with leases and permits issued under the Acts of February 25, 1920, as amended (30 U.S.C. 181 *et seq.*); August 7, 1947 (30 U.S.C. 351 *et seq.*); February 7, 1927, as amended (30 U.S.C. 281 *et seq.*); April 17, 1926, as amended (30 U.S.C. 271 *et seq.*); October 20, 1914, as

amended (48 U.S.C. 432 *et seq.*); June 28, 1944 (58 Stat 463 *et seq.*); September 1, 1949 (30 U.S.C. 192c); June 30, 1950 (16 U.S.C. 508b); or under the authority of any of the Acts cited in Section 402 of the President's Reorganization Plan No. 3 of 1946 (5 U.S.C. 133y-16, Note).

exercise of the privileges authorized by this lease or permit, and shall maintain such fire tools at his headquarters or at the appropriate location on the lands as are deemed necessary by such representative.

(3) In the location, design, construction and maintenance of all authorized works, buildings, plants, waterways, roads, telegraph or telephone lines, pipelines, reservoirs, tanks, pumping stations, or other structures or clearance, the lessee or permittee shall do all things reasonably necessary to prevent or reduce to the fullest extent scarring and erosion of the lands, pollution of the water resources and any damage to the watershed. Where construction, operation, or maintenance of any of the facilities on or connected with this lease or permit causes damage to the watershed or pollution of the water resources, the lessee or permittee agrees to repair such damage and to take such corrective measures to prevent further pollution or damage to the watershed as are deemed necessary by the authorized representative of the Secretary of Agriculture.

(4) To pay the lessor or permitter or his tenant or the surface owner or his tenant, as the case may be, for any and all damage to or destruction of property caused by the lessee's or permittee's operations hereunder; to save and hold the lessor or permitter or the surface owner or their tenants harmless from all damage or claims for damage to persons or property resulting from the lessee's or permittee's operations under this lease or permit.

(5) To recognize existing uses and commitments, in the form of Department of Agriculture grazing, timber cutting, and special use permits, water developments, ditch, road, trail, pipeline, telephone line, and fence rights-of-way and other similar improvements, and to conduct his operations so as to interfere as little as possible with the rights and privileges granted by these permits or with other existing uses.

(6) To install and maintain cattle guards to prevent the passage of livestock in any openings made in fences by the lessee or permittee or his contractors to provide access to the lands covered by this lease or permit for automotive and other equipment.

(7) If lessee or permittee shall construct any camp on the lands, such camp shall be located at a place approved by the authorized representative of the Secretary of Agriculture, and such representative shall have authority to require that such camp be kept in in a neat and sanitary condition.

(8) To comply with all the rules and regulations of the Secretary of Agriculture governing the national forests or other lands under his jurisdiction which are embraced in this lease or permit.

(9) Unless otherwise authorized, prior to the beginning of operations to appoint and maintain at all times during the term of this lease or permit a local agent upon whom may be served written orders or notices respecting matters contained in this stipulation, and to inform the authorized representative of the Secretary of Agriculture, in writing, of the name and address of such agent. If a substitute agent is appointed, the lessee or permittee shall immediately so inform the said representative.

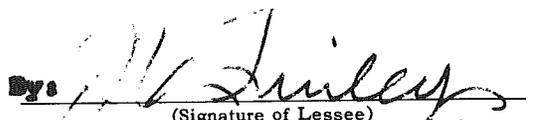
(10) To address all matters relating to this stipulation to

Forest Supervisor
U.S. Forest Service
at Medicine Bow National Forest
Laramie, Wyoming 82070

who is the authorized representative of the Secretary of Agriculture, or to such other representative as may from time to time, be designated, provided that such designation shall be in writing and be delivered to the lessee or permittee or his agent.

(11) If all or any part of the lands lie within a municipal watershed, or are, in the opinion of the authorized representative of the Secretary of Agriculture, primarily valuable for watershed protection, the lessee or permittee shall reseed or otherwise restore the vegetative cover, as required by the authorized representative of the Secretary of Agriculture, for watershed protection and erosion prevention on any areas damaged because of the operation.

KERR-McGEE CORPORATION

By: 
(Signature of Lessee)
J. C. Finley, Vice President

GPO 844-923

SUPPLEMENTAL STIPULATION T
STIPULATION FOR LANDS UNDER JURISDICTION OF DEPARTMENT OF AGRICULTURE

To be attached to and made a part of Form 3103-2.

W-24710

A. Applicable to Exploration Activities

1. At least two weeks before beginning any exploration work, including access and work road location and construction, the lessee shall prepare a "Lessee Exploration Plan" with the District Ranger, Richard W. [unclear]. The plan shall be prepared in triplicate, including maps, for approval by the Forest Supervisor. Such approval will be conditioned on reasonable requirements needed to prevent soil erosion, water pollution, and unnecessary damages to the surface vegetation and other resources of the United States and to provide for the restoration of the land surface and vegetation. The plan shall contain all such provisions as the Forest Service may deem necessary to maintain proper management of the lands and resources within the exploration area.

Where appropriate, depending upon the location and type of operation, the Forest Supervisor may require the plan to contain, at a minimum, the following items:

- (a) The location, construction specifications, maintenance program, and estimated use by the lessee, his employees and agents, of all access and work roads.
- (b) The location and extent of any and all areas to be occupied during the explorations.
- (c) The methods to be used in the explorations, including disposal of waste material.
- (d) The size and type of equipment to be used in the explorations.
- (e) The capacity, size, character, standards of construction and location of all structures and facilities to be constructed.
- (f) Typical profiles of cuts and fills of all areas to be graded for the installation of structures and facilities.
- (g) The location and size of areas upon which vegetation will be destroyed and/or soil laid bare and the steps which will be taken to prevent and control soil erosion thereon, including but not limited to the proposed program for rehabilitation and revegetation of these disturbed lands both during and upon cessation of explorations.
- (h) The steps which will be taken to prevent water pollution.

- (i) The character, amount, and time of use of explosives or fire, including safety precautions which will be taken during their use.
- (j) The coordination and rehabilitation measures that will be taken to protect other uses of the land, permitted livestock, and wildlife.

If later explorations require departures from or additions to the approved plan, these revisions or amendments, together with justification statement for proposed revisions, will be submitted to the District Ranger for approval of the Forest Supervisor.

Any and all operations conducted in advance of approval of an original, revised, or amended exploration plan, or which are not in accord with an approved plan, constitute a violation of the terms of this lease and the Forest Service reserves the right to close down explorations until such corrective action, as is deemed necessary, is taken by the lessee.

2. To guarantee the successful rehabilitation and revegetation of abandoned exploration sites, roads and other disturbed areas, as provided for in the "Lessee Exploration Plan," (paragraph 1) above, the lessee will furnish the Forest Service a surety bond in the amount of \$10,000 prior to undertaking any work on the lease area. Provided that, in the event the work is conducted in separate phases, each phase will be covered by a separate bond in the minimum amount of \$10,000 before the start of any work on each phase. In lieu of surety bond, the lessee may deposit into a Federal Depository cash, through the Unit Collection Officer, Medicine Bend National Forest, or negotiable securities through the Regional Fiscal Agent, U. S. Forest Service, Bldg. 85, Denver Federal Center, Denver, Colorado 80225 in the amounts stated above or each separately bonded phase area. As soon as the lease area has been successfully rehabilitated and revegetated and approved in writing by the Forest Supervisor, surety will be notified, or cash deposits returned with out interest, or securities returned without interest. The lessee agrees that all monies or deposits in lieu thereof, deposited under this authority may be retained by the United States to cover the cost of any said restoration and rehabilitation rendered necessary by failure of the lessee to fulfill all and singular the requirements assumed hereunder without prejudice whatever to any other rights and remedies of the United States.
3. No occupancy of the surface of the following areas is authorized by this lease. The lessee is, however, authorized to emply directional drilling to explore the mineral resources under these areas provided that such drilling or other works will not disturb the surface area or otherwise interfere with their use by the Forest

Service. It is understood and agreed that the use of these areas for National Forest purposes is superior to any other use. The excluded areas are:

- (a) Within the normal highwater line of any and all lakes, ponds, and reservoirs located within the lease area.
- (b) Within 200 feet of the normal highwater line of any and all live streams in the area.
- (c) Within 400 feet of any and all springs and wells within the lease area.
- (d) Within 400 feet of any improvements either owned, permitted, leased, or otherwise authorized by the Forest Service.

The distances in subparagraphs (a), (b), (c), and (d) may be reduced when specifically agreed to in the exploration plan, (paragraph 1).

B. Applicable to Production (operation) Activities

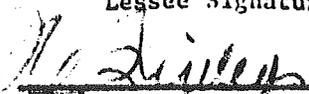
1. The lessee, before the start of any mining operations, agrees to enter into such additional specific stipulations with the Forest Service covering the lessee's mining operations as are deemed necessary and appropriate, depending upon the mining methods to be used and current mining and reclamation technology, to meet the following land management principles:
 - (a) Maintain and protect the areas which will be either directly or indirectly affected by the lessee's mining operations to minimize the effect on grazing capabilities.
 - (b) Install structures and facilities and revegetate disturbed areas to protect the soil from excessive erosion and return the land to a usable condition.
 - (c) Take all measures reasonably necessary to minimize the pollution and contamination of the surface and subsurface water sources.
 - (d) Protect, insofar as is practicable, improvements owned or authorized by the Forest Service, and restore or replace these said improvements in event they must be destroyed or disturbed by the lessee's mining operations.

Such stipulations will be developed jointly by the lessee; representatives of the Branch of Mining Operations, Conservation Division, U. S. Geological Survey; and the Supervisor, Medicine Row, Forest Service.

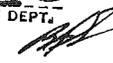
2. The lessee shall prepare in triplicate and submit an annual operating plan to the Forest Supervisor which will include as a minimum:
 - (a) The mining operating areas and the methods of operation planned for each area.
 - (b) The areas to be treated and details of the rehabilitation and revegetation measures to be initiated in the planning year to meet the stipulated requirements of the Forest Service.
 - (c) The location and construction specifications of all roads necessary for the mining operation during the planning year.
 - (d) The steps to be taken to minimize water pollution and soil erosion.
 - (e) The correlation of the mining operations with the Forest Service's use and management of the lands not included in that year's operating plan.
3. The lessee shall submit to the Forest Supervisor an annual progress map and report of mining, restoration, and revegetation operations.
4. The lessee shall furnish performance bonds as required by the Forest Supervisor to guarantee fulfillment of the stipulations, entered under (1) above, and the operating plans, prepared under (2) above.
5. The Forest Service reserves the right to amend, alter, or otherwise change during the life of the lease, any and all stipulations necessary to meet the land management principles outlined in paragraph 1 above provided that before any such amendments, alterations, and other changes are made, the lessee shall be invited to make any comments as he may deem necessary and, provided further, that no such amendments, alterations, and changes in these stipulations shall be made unless agreed to in writing by the lessee and the Forest Service.
6. The Forest Service reserves the right to manage and use all lands administered by it which are embraced within the lease for such purposes as they may deem desirable, provided, that this use and management shall not interfere or conflict with the current mining operations of the lessee.

KERR-MCGEE CORPORATION

Lessee Signature

By: 

J. C. Finley
Vice President

FORM
APPROVED 
LAW DEPT. 

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

EQUAL OPPORTUNITY IN EMPLOYMENT
CERTIFICATION OF NONSEGREGATED FACILITIES

Bid, offer or contract number or
other identification:

W-24710

By the submission of this bid or offer and/or by entering into this contract, the bidder, offeror, lessee, subcontractor, or applicant certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means, but is not limited to, any waiting rooms, work areas, rest rooms and wash rooms, restaurants and

other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that he will retain such certifications in his files; and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT
FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities, as required by the May 9, 1967, order (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the

provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

In accordance with 41 CFR 60, as amended May 19, 1967, and Executive Order No. 11246 of September 24, 1965, this certification is applicable to all bids, offers, contracts and subcontracts as well as agreements with applicants who are themselves performing federally assisted contracts, which may exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity clause of the Order.

RECEIVED
Bureau of Land Management
Land Office
Cheyenne, Wyoming
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COAL LEASE

Land Office
WYOMING
Serial Number
Wyoming 0313666

3A

This lease, entered into on the 1st day of October, 1965, by the United States of America, the lessor, through the Bureau of Land Management, and Wyodak Resources Development Corporation, P. O. Box 1951, Rapid City, South Dakota

, the lessee, pursuant and subject to the terms and provisions of the Act of February 25, 1920 (41 Stat. 437), as amended, hereinafter referred to as the Act, and to all reasonable regulations of the Secretary of the Interior now or hereafter in force which are made a part hereof,

WITNESSETH:

Sec. 1. *Rights of Lessee.* The lessor, in consideration of the rents and royalties to be paid and the conditions to be observed as hereinafter set forth does hereby grant and lease to the lessee the exclusive right and privilege to mine and dispose of all the coal in the following-described tracts of land, situated in the State of Wyoming

- T. 50 N., R. 71 W., 6th Prin. Mer.
- Section 9: E $\frac{1}{2}$
- Section 10: W $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$
- Section 15: W $\frac{1}{2}$ NE $\frac{1}{4}$, W $\frac{1}{2}$, SE $\frac{1}{4}$
- Section 21: N $\frac{1}{2}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, SW $\frac{1}{4}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$
- Section 22: N $\frac{1}{2}$, E $\frac{1}{2}$ SW $\frac{1}{4}$, SE $\frac{1}{4}$
- Section 28: NW $\frac{1}{4}$ NW $\frac{1}{4}$

containing 2200 acres, more or less, together with the right to construct all such works, buildings, plants, structures, and appliances as may be necessary and convenient for the mining and preparation of the coal for market, the manufacture of coke or other products of coal, the housing and welfare of employees, and subject to the conditions herein provided, to use so much of the surface as may reasonably be required in the exercise of the rights and privileges herein granted.

Sec. 2. In consideration of the foregoing, the lessee hereby agrees:

(a) *Bond.* To maintain the bond furnished upon the issuance of this lease, which bond is conditioned upon compliance with all the provisions of the lease, and to increase the amount or furnish such other bond as may be required.

(b) *Rental.* To pay the lessor annually, in advance, for each acre or fraction thereof covered by this lease, beginning with the date hereof, the following rentals: 25 cents for the first year; 50 cents for the second, third, fourth, and fifth years, respectively; and \$1 for the sixth and each succeeding year during the continuance of the lease, such rental for any year to be credited against the first royalties as the same accrue under the lease during the year for which the rental was paid.

(c) *Royalty.* To pay the lessor a royalty of _____ cents on every ton of 2,000 pounds of coal mined during the first 20 years succeeding the execution of this lease. Royalties shall be payable quarterly within

30 days from the expiration of the quarter in which the coal is mined. For additional royalty terms, see last page.

(d) *Minimum production.* Beginning with the sixth year of the lease, except when operations are interrupted by strikes, the elements, or casualties not attributable to the lessee, or unless on application and showing made, operations shall be suspended when market conditions are such that the lessee cannot operate except at a loss or suspended for the other reasons specified in Section 39 of the Act, to mine coal each year and pay a royalty thereon to a value of \$1 per acre or fraction thereof. Operations under this lease shall be continuous except in circumstances described or unless the lessee shall pay a royalty, less rent, on such minimum amount of the leased deposits, for one year in advance, in which case operations may be suspended for that year.

(e) *Payments.* To make rental payments to the Manager of the appropriate Land Office, except that when this lease becomes productive the rentals and

ORIGINAL

royalties shall be paid to the appropriate regional mining supervisor of the United States Geological Survey, with whom all reports concerning operations under the lease shall be filed. All remittances to the manager of the land office shall be made payable to the Bureau of Land Management, those to the Geological Survey shall be made payable to the United States Geological Survey.

(f) *Plats, reports, maps.* At such times and in such form as the lessor may prescribe, to furnish a plat showing development work and improvements on the leased lands and a report with respect to stockholders, investment, depreciation, and costs. To furnish in such form as the lessor may prescribe, within 30 days from the expiration of each quarter a report covering such quarter, certified by the superintendent of the mine, or by such other agent having personal knowledge of the facts as may be designated by the lessee for such purpose, showing the amount of leased deposits mined during the quarter, the character and quality thereof, amount of its products and byproducts disposed of and price received therefor, and amount in storage or held for sale. To keep and prepare maps of the leased lands in accordance with the appropriate regulations.

(g) *Weights.* To determine accurately the weight or quantity and quality of all leased deposits mined, and to enter accurately the weight or quantity and quality thereof in due form in books to be kept and preserved by the lessee for such purposes.

(b) *Inspection.* To permit at all reasonable times (1) inspection by any duly authorized officer of the Department, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease, if desired.

(i) *Assignment.* To file for approval in the appropriate land office within 90 days from the date of execution, any assignment or transfer made of this lease, whether by direct assignment, operating agreement, working or royalty interest, or otherwise. Such instrument will take effect the first day of the month following its approval by the Bureau of Land Management, or if the assignee requests, the first day of the month of approval. The showing required to be made with an assignment or transfer is set forth in the appropriate regulations.

(j) *Equal Opportunity clause.* During the performance of this contract the lessee agrees as follows:

(1) The lessee will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The lessee will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The lessee agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The lessee will, in all solicitations or advertisements for employees placed by or on behalf of the lessee, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(3) The lessee will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the lessee's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The lessee will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The lessee will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the lessee's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the lessee may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The lessee will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The lessee will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: *Provided, however,* That in the event the lessee becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the lessee may request the United States to enter into such litigation to protect the interest of the United States.

(k) *Land disposed of with coal deposits reserved to the United States.* If the lands embraced herein have been or shall hereafter be disposed of under laws reserving to the United States the deposits of coal therein, to comply with all conditions as are or may hereafter be provided by the laws and regulations reserving such coal.

(l) *Operations, wages, freedom of purchase.* To comply with the appropriate operating regulations, to exercise reasonable diligence, skill, and care in the operations of the property, and to carry on all operations in accordance with approved methods and practices as provided in the operating regulations, having due regard for the prevention of injury to life, health or property, and of waste or damage to any water or mineral deposits; to fairly and justly weigh or measure the coal mined by each miner, to pay all wages due miners and employees, both above and below ground, at least twice each month in lawful money of the United States; to accord all miners and employees complete freedom of purchase; to restrict the workday to not exceeding eight hours in any one day for underground

workers, except in cases of emergency; to employ no boy under the age of sixteen and no girl or woman, without regard to age, in any mine below the surface; unless the laws of the State otherwise provide, in which case the State laws control.

(m) *Taxes.* To pay when due, all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, or other rights, property, or assets of the lessee.

(n) *Overriding royalties.* Not to create, by assignment or otherwise, an overriding royalty interest in excess of 50 percent of the rate of royalty first payable to the United States under this lease or an overriding royalty interest which when added to any other outstanding overriding royalty interest exceeds that percentage, excepting, that where an interest in the leasehold or in an operating agreement is assigned, the assignor may retain an overriding royalty interest in excess of the above limitation if he shows to the satisfaction of the Bureau of Land Management, that he has made substantial investments for improvements on the land covered by the assignment.

(o) *Delivery of premises in case of forfeiture.* In case of forfeiture of this lease, to deliver up to the lessor in good order and condition the land leased, including all buildings, and underground timbering and such other supports and structures as are necessary for the preservation of the mine or deposit.

Sec. 3. The lessor expressly reserves:

(a) *Rights reserved.* The right to permit for joint or several use such easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands containing the deposits described in the act, and the treatment and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) *Disposition of surface.* The right to lease, sell, or otherwise dispose of the surface of the leased lands under existing law or laws hereafter enacted, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the coal therein, or to dispose of any resource in such lands which will not unreasonably interfere with operations under this lease.

(c) *Monopoly and fair prices.* Full power and authority to promulgate and enforce all the provisions of section 30 of the act to insure the sale of the production of said leased lands to the United States and to the public at reasonable prices, to prevent monopoly, and to safeguard the public welfare.

(d) *Readjustment of terms.* The right reasonably to readjust and fix royalties payable hereunder and other terms and conditions at the end of 20 years from the date hereof and thereafter at the end of each succeeding 20-year period during the continuance of this lease unless otherwise provided by law at the time of the expiration of any such period. Unless the lessee files objections to the proposed terms or a relinquishment of the lease within 30 days after receipt of the notice of proposed terms for a 20-year period, he will be deemed to have agreed to such terms.

(e) *Waiver of conditions.* The right to waive any breach of the conditions contained herein, except the breach of such conditions as are required by the act, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the

lessor with respect to any future breach; nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

Sec. 4. *Relinquishment of lease.* Upon a satisfactory showing that the public interest will not be impaired, the lessee may surrender the entire lease or any legal subdivision thereof. A relinquishment must be filed in duplicate in the appropriate land office. Upon its acceptance it shall be effective as of the date it is filed, subject to the continued obligation of the lessee and his surety to make payment of all accrued rentals and royalties and to provide for the preservation of any mines or productive works or permanent improvements on the leased lands in accordance with the regulations and terms of the lease.

Sec. 5. *Protection of the surface, natural resources, and improvements.* The lessee agrees to take such reasonable steps as may be needed to prevent operations, including operation of operating plants on the leased premises, from unnecessarily: (1) causing or contributing to soil erosion or damaging any forage and timber growth on the leased lands or on Federal or non-Federal lands in the vicinity; (2) polluting air and water; (3) damaging crops, including forage, timber, or improvements of a surface owner; (4) damaging improvements whether owned by the United States or by its permittees or lessees; or (5) destroying, damaging, or removing fossils, historic or prehistoric ruins, or artifacts; and upon any partial or total relinquishment or the cancellation or expiration of this lease, or at any other time prior thereto when required and to the extent deemed necessary by the lessor to fill any sump holes, ditches, and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land and access roads to its former condition, including the removal of structures as and if required. The lessor may prescribe the steps to be taken and restoration to be made with respect to the leased lands and improvements thereon, whether or not owned by the United States.

Sec. 6. *Removal of equipment, etc., on termination of lease.* Upon termination of this lease, by surrender or forfeiture, the lessee shall have the privilege at any time within a period of 90 days thereafter of removing from the premises all machinery, equipment, tools and materials, except underground timbering placed by the lessee in or on the leased lands, which are necessary for the preservation of the mine. Any materials, tools, appliances, machinery, structures, and equipment, subject to removal as above provided, which are allowed to remain on the leased lands shall become the property of the lessor on expiration of the 90-day period or such extension thereof as may be granted because of adverse climatic conditions, but the lessee shall remove any or all of such property where so directed by the lessor.

Sec. 7. *Proceedings in case of default.* If the lessee shall not comply with any of the provisions of the act or the regulations thereunder or default in the performance or observance of any of the provisions of this lease, and such default shall continue for a period of 30 days after service of written notice thereof by the lessor, the lessor may institute appropriate proceedings in a court of competent jurisdiction for the forfeiture and cancellation of this lease as provided in section 31 of the act. If the lessee fails to take prompt and necessary steps to prevent loss or damage to the mine, property, or premises, or danger to the employees, the lessor may enter on the premises and take such measures as may be deemed necessary to prevent such loss or damage or to correct the dangerous or unsafe condition of the mine or works thereof, which shall be at the expense of the lessee. However, the lessee shall

not be held responsible for delays or casualties occasioned by causes beyond the lessee's control.

Sec. 8. *Heirs and successors in interest.* Each obligation hereunder shall extend to, and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

Sec. 9. *Unlawful interest.* No Member of, or Delegate to, Congress, or Resident Commissioner, after his

election or appointment, or either before or after he has qualified and during his continuance in office, and officer, agent, or employee of the Department Interior, except as provided in 43 CFR 7.4(a)(1) be admitted to any share or part in this lease or derive any benefit that may arise therefrom; and the provisions of Section 3741 of the Revised Statutes of the United States, as amended (41 U.S.C. Sec. 22), and Sections 431, 432, and 433, Title 18, U.S.C., relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

THE UNITED STATES OF AMERICA

By George S. Neuberg
(Signing Officer)
George S. Neuberg
Assistant Manager, Mining
(Title)

September 16, 1965
(Date)
Wyodak Resources Development Corp.

WITNESS TO SIGNATURE OF LESSEE

N.M. [Signature]
Secretary-Treasurer

Nail D. Simpson
(Signature of Lessee)
Vice President

Harold E. Ross, Vice Pres & Gen Manager.
(Signature of Lessee)

(Signature of Lessee)

(If this lease is executed by a corporation, it must bear the corporate seal)

(c) **Royalty.** To pay the lessor a royalty of 17½ cents a ton of 2,000 pounds for the first 10 years of the lease and 20 cents a ton for the remainder of the first 20-year period, succeeding the execution of this lease.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

COAL LEASE
Act of February 25, 1920 (41 Stat. 437), as amended



Land Office

Cheyenne, Wyoming

Serial Number

Wyoming 073289

This lease, entered into on May 1, 1959, by the United States of America, the lessor, through the Bureau of Land Management, and **Wyodak Resources Development Corporation**

**P. O. Box 1951
Rapid City, South Dakota**

the lessee, pursuant and subject to the terms and provisions of the act of February 25, 1920 (41 Stat. 437), as amended, hereinafter referred to as the act, and to all reasonable regulations of the Secretary of the Interior now in force which are made a part hereof,

Witnesseth:

Section 1. *Rights of lessee.* The lessor, in consideration of the rents and royalties to be paid and the conditions to be observed as hereinafter set forth does hereby grant and lease to the lessee the exclusive right and privilege to mine and dispose of all the coal in the following-described tracts of land, situated in the State of **Wyoming:**

**T. 30 N., R. 71 W., 6th P. M.
Section 28: SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$**

containing **240** acres, more or less, together with the right to construct all such works, buildings, plants, structures, and appliances as may be necessary and convenient for the mining and preparation of the coal for market, the manufacture of coke or other products of coal, the housing and welfare of employees, and, subject to the conditions herein provided, to use so much of the surface as may reasonably be required in the exercise of the rights and privileges herein granted.

Sec. 2. In consideration of the foregoing, the lessee hereby agrees:

(a) *Bond.* To maintain the bond furnished upon the issuance of this lease, which bond is conditioned upon compliance with all the provisions of the lease, and to increase the amount or furnish such other bond as may be required.

(b) *Rental.* To pay the lessor annually, in advance, for each acre or part thereof covered by this lease, beginning with the date hereof, the following rentals: 25 cents for the first year, 50 cents for the second, third, fourth, and fifth years, respectively, and \$1 for the sixth and each succeeding year during the continuance of the lease, such rental for any year to be credited against the first royalties as they accrue under the lease during the year for which the rental was paid.

(c) *Royalty.* To pay the lessor a royalty of _____ cents on every ton of 2,000 pounds of coal mined during the first 20 years succeeding the execution of this lease. Royalties shall be payable quarterly within 30 days from the expiration of the quarter in which the coal is mined.

(d) *Minimum production.* Beginning with the sixth year of the lease, except when operations are interrupted by strikes, _____ to the lessee, or

accurately the weight or quantity and quality thereof in due form in books to be kept and preserved by the lessee for such purposes.

(h) *Inspection.* To permit at all reasonable times (1) inspection by any duly authorized officer of the Department, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease, if desired.

(i) *Assignment.* To file for approval in the appropriate Land Office within 90 days from the date of execution, any assignment or transfer made of this lease, whether by direct assignment, operating agreement, working or royalty interest, or otherwise. Such instrument will take effect the first day of the month following its approval by the Bureau of Land Management, or if the assignee requests, the first day of the month of approval. The showing required to be made with an assignment or transfer is set forth in the regulations, 43 CFR 193.25.

(j) *Nondiscrimination.* In connection with the performance of this lease, not to discriminate against any race or

(c) *Royalty.* To pay the lessor a royalty of 10 cents on every ton of 2,000 pounds of coal mined during the first 10 years of the lease; 12 cents a ton during the next 5 years, and 15 cents a ton during the remainder of the first 20-years succeeding the execution of this lease. Royalties shall be payable quarterly within 30 days from the expiration of the quarter in which the coal is mined.

becomes productive the rentals and royalties shall be paid to the appropriate Regional Mining Supervisor of the United States Geological Survey, with whom all reports concerning operations under the lease shall be filed. All remittances to the Manager of the Land Office shall be made payable to the Bureau of Land Management, those to the Geological Survey shall be made payable to the United States Geological Survey.

(f) *Plats, reports, maps.* At such times and in such form as the lessor may prescribe, to furnish a plat showing development work and improvements on the leased lands and a report with respect to stockholders, investment, depreciation, and costs. To furnish in such form as the lessor may prescribe, within 30 days from the expiration of each quarter a report covering such quarter, certified by the superintendent of the mine, or by such other agent having personal knowledge of the facts as may be designated by the lessee for such purpose, showing the amount of leased deposits mined during the quarter, the character and quality thereof, amount of its products and byproducts disposed of and price received therefor, and amount in storage or held for sale. To keep and prepare maps of the leased lands in accordance with the regulations in 30 CFR, part 211.

(g) *Weights.* To determine accurately the weight or quantity and quality of all leased deposits mined, and to enter

subcontracts for standard commercial supplies or raw materials.

(k) *Land disposed of with coal deposits reserved to the United States.* If the lands embraced herein have been or shall hereafter be disposed of under laws reserving to the United States the deposits of coal therein, to comply with all conditions as are or may hereafter be provided by the laws and regulations reserving such coal.

(l) *Operations, wages, freedom of purchase.* To comply with the operating regulations (30 CFR, part 211), to exercise reasonable diligence, skill, and care in the operations of the property, and to carry on all operations in accordance with approved methods and practices as provided in the operating regulations, having due regard for the prevention of injury to life, health or property, and of waste or damage to any water or mineral deposits; to fairly and justly weigh or measure the coal mined by each miner; to pay all wages due miners and employees, both above and below ground, at least twice each month in lawful money of the United States; to accord all miners and employees complete freedom of purchase; to restrict the workday to not exceeding eight hours in any one day for underground workers, except in cases of emergency; to employ no boy under the age of sixteen and no girl or woman,

without regard to age, in any mine or on the surface, unless the laws of the State otherwise provide, in which case the State laws control.

(v) *Taxes.* To pay when due, all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, or other rights, property, or assets of the lessee.

(n) *Overriding royalties.* Not to create, by assignment or otherwise, an overriding royalty interest in excess of 50 percent of the rate of royalty first payable to the United States under this lease or an overriding royalty interest which when added to any other outstanding overriding royalty interest exceeds that percentage, excepting, that where an interest in the leasehold or in an operating agreement is assigned, the assignor may retain an overriding royalty interest in excess of the above limitation if he shows to the satisfaction of the Bureau of Land Management, that he has made substantial investments for improvements on the land covered by the assignment.

(o) *Delivery of premises in case of forfeiture.* In case of forfeiture of this lease, to deliver up to the lessor in good order and condition the land leased, including all buildings, and underground timbering and such other supports and structures as are necessary for the preservation of the mine or deposit.

Sec. 3. The lessor expressly reserves:

(a) *Rights reserved.* The right to permit for joint or several use such easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands containing the deposits described in the act, and the treatment and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) *Disposition of surface.* The right to lease, sell, or otherwise dispose of the surface of the leased lands under existing law or laws hereafter enacted, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the coal therein, or to dispose of any resource in such lands which will not unreasonably interfere with operations under this lease.

(c) *Monopoly and fair prices.* Full power and authority to promulgate and enforce all the provisions of section 30 of the act to insure the sale of the production of said leased lands to the United States and to the public at reasonable prices, to prevent monopoly, and to safeguard the public welfare.

(d) *Readjustment of terms.* The right reasonably to readjust and fix royalties payable hereunder and other terms and conditions at the end of 20 years from the date hereof and thereafter at the end of each succeeding 20-year period during the continuance of this lease unless otherwise provided by law at the time of the expiration of any such period. Unless the lessee files objections to the proposed terms or a relinquishment of the lease within 30 days after receipt of the notice of proposed terms for a 20-year period, he will be deemed to have agreed to such terms.

(e) *Waiver of conditions.* The right to waive any breach of the conditions contained herein, except the breach of such conditions as are required by the act, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the lessor with respect to any future breach, nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

Sec. 4. *Relinquishment of lease.* Upon a satisfactory showing that the public interest will not be impaired, the lessee may surrender the entire lease or any legal subdivision thereof. A relinquishment must be filed in duplicate in the appropriate Land Office. Upon its acceptance it shall be effective as of the date it is filed, subject to the continued obligation of the lessee and his surety to make payment of all accrued rentals and royalties and to provide for the preservation of any mines or productive works or permanent improve-

ments on the leased lands in accordance with the regulations and terms of the lease.

Sec. 5. *Protection of the surface, natural resources, and improvements.* The lessee agrees to take such reasonable steps as may be needed to prevent operations from unnecessarily: (1) Causing or contributing to soil erosion or damaging any forage and timber growth thereon; (2) polluting the waters of springs, streams, wells, or reservoirs; (3) damaging crops, including forage, timber, or improvements of a surface owner; or (4) damaging range improvements whether owned by the United States or by its grazing permittees or lessees; and upon any partial or total relinquishment or the cancellation or expiration of this lease, or at any other time prior thereto when required by the lessor and to the extent deemed necessary by the lessor, to fill any sump holes, ditches and other excavations; remove or cover all debris; and, so far as reasonably possible, restore the surface of the leased land to its former condition, including the removal of structures as and if required. The lessor may prescribe the steps to be taken and restoration to be made with respect to lands of the United States and improvements thereon.

Sec. 6. *Removal of equipment, etc., on termination of lease.* Upon termination of this lease, by surrender or forfeiture, the lessee shall have the privilege at any time within a period of 90 days thereafter of removing from the premises all machinery, equipment, tools and materials, other than underground timbering placed by the lessee in or on the leased lands, which are not necessary for the preservation of the mine. Any materials, tools, appliances, machinery, structures, and equipment, subject to removal as above provided, which are allowed to remain on the leased lands shall become the property of the lessor on expiration of the 90-day period or such extension thereof as may be granted because of adverse climatic conditions, but the lessee shall remove any or all of such property where so directed by the lessor.

Sec. 7. *Proceedings in case of default.* If the lessee shall not comply with any of the provisions of the act or the regulations thereunder or default in the performance or observance of any of the provisions of this lease, and such default shall continue for a period of 30 days after service of written notice thereof by the lessor, the lessor may institute appropriate proceedings in a court of competent jurisdiction for the forfeiture and cancellation of this lease as provided in section 31 of the act (30 USC, sec. 188). If the lessee fails to take prompt and necessary steps to prevent loss or damage to the mine, property, or premises, or danger to the employees, the lessor may enter on the premises and take such measures as may be deemed necessary to prevent such loss or damage or to correct the dangerous or unsafe condition of the mine or works thereof, which shall be at the expense of the lessee. However, the lessee shall not be held responsible for delays or casualties occasioned by causes beyond the lessee's control.

Sec. 8. *Heirs and successors in interest.* Each obligation hereunder shall extend to, and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

Sec. 9. *Unlawful interest.* No Member of, or Delegate to, Congress or Resident Commissioner, after his election or appointment, or either before or after he has qualified and during his continuance in office, and no officer, agent, or employee of the Department of the Interior, except as provided in 43 CFR 7.4(n)(1), shall be admitted to any share or part in this lease or derive any benefit that may arise therefrom, and the provisions of section 3741 of the Revised Statutes of the United States, as amended (41 USC, sec. 22), and sections 431, 432, and 433, title 18, U. S. Code, relating to contracts, enter into and form a part of this lease so far as the same may be applicable.

IN WITNESS WHEREOF:

THE UNITED STATES OF AMERICA

By Craig A. Decker (Signature Officer) Manager, Land Office
Bureau of Land Management, Cheyenne, Wyoming

WITNESSES TO SIGNATURE OF LESSEE

[Signature]

WYODAK RESOURCES DEVELOPMENT CORP.^(S)

[Signature]
(Signature of Lessee)

(Signature of Lessee)

(Signature of Lessee)

(If this lease is executed by a corporation, it must bear the corporate seal)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Land Office

Cheyenne, Wyoming

Serial Number

Wyoming 0111833

COAL LEASE
Act of February 25, 1920 (41 Stat. 437), as amended

This lease, entered into on April 1, 1961, by the United States of America, the lessor, through the Bureau of Land Management, and Wyodak Resources Development Corp. P. O. Box 149, Gillette, Wyoming

the lessee, pursuant and subject to the terms and provisions of the act of February 25, 1920 (41 Stat. 437), as amended, hereinafter referred to as the act, and to all reasonable regulations of the Secretary of the Interior now in force which are made a part hereof,

Witnesseth:

Section 1. *Rights of lessee.* The lessor, in consideration of the rents and royalties to be paid and the conditions to be observed as hereinafter set forth does hereby grant and lease to the lessee the exclusive right and privilege to mine and dispose of all the coal in the following-described tracts of land, situated in the State of Wyoming:

T. 50 N., R. 71 W., 6th P. M.
Sec. 21: SE $\frac{1}{4}$ SE $\frac{1}{4}$,
Sec. 22: SW $\frac{1}{4}$ SW $\frac{1}{4}$.

containing .80 acres, more or less, together with the right to construct all such works, buildings, plants, structures, and appliances as may be necessary and convenient for the mining and preparation of the coal for market, the manufacture of coke or other products of coal, the housing and welfare of employees, and, subject to the conditions herein provided, to use so much of the surface as may reasonably be required in the exercise of the rights and privileges herein granted.

Sec. 2. In consideration of the foregoing, the lessee hereby agrees:

- (a) *Bond.* To maintain the bond furnished upon the issuance of this lease, which bond is conditioned upon compliance with all the provisions of the lease, and to increase the amount or furnish such other bond as may be required.
- (b) *Rental.* To pay the lessor annually, in advance, for each acre or part thereof covered by this lease, beginning with the date hereof, the following rentals: 25 cents for the first year, 50 cents for the second, third, fourth, and fifth years, respectively, and \$1 for the sixth and each succeeding year during the continuance of the lease, such rental for any year to be credited against the first royalties as they accrue

accurately the weight or quantity and quality thereof in due form in books to be kept and preserved by the lessee for such purposes.

(h) *Inspection.* To permit at all reasonable times (1) inspection by any duly authorized officer of the Department, of the leased premises and all surface and underground improvements, works, machinery, equipment, and all books and records pertaining to operations and surveys or investigations under this lease; and (2) the lessor to make copies of and extracts from any or all books and records pertaining to operations under this lease, if desired.

(i) *Assignment.* To file for approval in the appropriate Land Office within 90 days from the date of execution, any assignment of this lease, whether by direct

- (c) *Royalty.* To pay the lessor a royalty of 10 cents on every ton of 2,000 pounds of coal mined during the first 5 years of the lease; 12 $\frac{1}{2}$ cents a ton during the next 5 years, and 15 cents a ton during the remainder of the first 20-year period of the lease. Royalties shall be payable quarterly within 30 days from the expiration of the quarter in which the coal is mined.

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reasons specified in section 39 of the act, to mine coal each year and pay a royalty thereon to a value of \$1 per acre or fraction thereof. Operations under this lease shall be continuous except in the circumstances described or unless the lessee shall pay a royalty, less rent, on such minimum amount of the leased deposits, for one year in advance, in which case operations may be suspended for that year.

(e) *Payments.* To make rental payments to the Manager of the appropriate Land Office, except that when this lease becomes productive the rentals and royalties shall be paid to the appropriate Regional Mining Supervisor of the United States Geological Survey, with whom all reports concerning operations under the lease shall be filed. All remittances to the Manager of the Land Office shall be made payable to the Bureau of Land Management, those to the Geological Survey shall be made payable to the United States Geological Survey.

(f) *Plats, reports, maps.* At such times and in such form as the lessor may prescribe, to furnish a plat showing development work and improvements on the leased lands and a report with respect to stockholders, investment, depreciation, and costs. To furnish in such form as the lessor may prescribe, within 30 days from the expiration of each quarter a report covering such quarter, certified by the superintendent of the mine, or by such other agent having personal knowledge of the facts as may be designated by the lessee for such purpose, showing the amount of leased deposits mined during the quarter, the character and quality thereof, amount of its products and byproducts disposed of and price received therefor, and amount in storage or held for sale. To keep and prepare maps of the leased lands in accordance with the regulations in 30 CFR, part 211.

(g) *Weights.* To determine accurately the weight or quantity and quality of all leased deposits mined, and to enter

following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The lessee also agrees to post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the nondiscrimination clause. The lessee further agrees to insert the foregoing provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials.

(k) *Land disposed of with coal deposits reserved to the United States.* If the lands embraced herein have been or shall hereafter be disposed of under laws reserving to the United States the deposits of coal therein, to comply with all conditions as are or may hereafter be provided by the laws and regulations reserving such coal.

(l) *Operations, wages, freedom of purchase.* To comply with the operating regulations (30 CFR, part 211), to exercise reasonable diligence, skill, and care in the operations of the property, and to carry on all operations in accordance with approved methods and practices as provided in the operating regulations, having due regard for the prevention of injury to life, health or property, and of waste or damage to any water or mineral deposits; to fairly and justly weigh or measure the coal mined by each miner; to pay all wages due miners and employees, both above and below ground, at least twice each month in lawful money of the United States; to accord all miners and employees complete freedom of purchase; to restrict the workday to not exceeding eight hours in any one day for underground workers, except in cases of emergency; to employ no boy under the age of sixteen and no girl or woman,

without regard to age, in any mine with the surface; unless the laws of the State otherwise provide, in which case the State laws control.

(m) *Taxes.* To pay when due, all taxes lawfully assessed and levied under the laws of the State or the United States upon improvements, output of mines, or other rights, property, or assets of the lessee.

(n) *Overriding royalties.* Not to create, by assignment or otherwise, an overriding royalty interest in excess of 50 percent of the rate of royalty first payable to the United States under this lease or an overriding royalty interest which when added to any other outstanding overriding royalty interest exceeds that percentage, excepting, that where an interest in the leasehold or in an operating agreement is assigned, the assignor may retain an overriding royalty interest in excess of the above limitation if he shows to the satisfaction of the Bureau of Land Management, that he has made substantial investments for improvements on the land covered by the assignment.

(o) *Delivery of premises in case of forfeiture.* In case of forfeiture of this lease, to deliver up to the lessor in good order and condition the land leased, including all buildings, and underground timbering and such other supports and structures as are necessary for the preservation of the mine or deposit.

Sec. 3. The lessor expressly reserves:

(a) *Rights reserved.* The right to permit for joint or several use such easements or rights-of-way, including easements in tunnels upon, through, or in the land leased, occupied, or used as may be necessary or appropriate to the working of the same or other lands containing the deposits described in the act, and the treatment and shipment of the products thereof by or under authority of the Government, its lessees or permittees, and for other public purposes.

(b) *Disposition of surface.* The right to lease, sell, or otherwise dispose of the surface of the leased lands under existing law or laws hereafter enacted, insofar as said surface is not necessary for the use of the lessee in the extraction and removal of the coal therein, or to dispose of any resource in such lands which will not unreasonably interfere with operations under this lease.

(c) *Monopoly and fair prices.* Full power and authority to promulgate and enforce all the provisions of section 30 of the act to insure the sale of the production of said leased lands to the United States and to the public at reasonable prices, to prevent monopoly, and to safeguard the public welfare.

(d) *Readjustment of terms.* The right reasonably to readjust and fix royalties payable hereunder and other terms and conditions at the end of 20 years from the date hereof and thereafter at the end of each succeeding 20-year period during the continuance of this lease unless otherwise provided by law at the time of the expiration of any such period. Unless the lessee files objections to the proposed terms or a relinquishment of the lease within 30 days after receipt of the notice of proposed terms for a 20-year period, he will be deemed to have agreed to such terms.

(e) *Waiver of conditions.* The right to waive any breach of the conditions contained herein, except the breach of such conditions as are required by the act, but any such waiver shall extend only to the particular breach so waived and shall not limit the rights of the lessor with respect to any future breach; nor shall the waiver of a particular cause of forfeiture prevent cancellation of this lease for any other cause, or for the same cause occurring at another time.

Sec. 4. *Relinquishment of lease.* Upon a satisfactory showing that the public interest will not be impaired, the lessee may surrender the entire lease or any legal subdivision thereof. A relinquishment must be filed in duplicate in the appropriate Land Office. Upon its acceptance it shall be effective as of the date it is filed, subject to the continued obligation of the lessee and his surety to make payment of all accrued rentals and royalties and to provide for the preservation of any mines or productive works or permanent improve-

ments on the leased lands in accordance with the regulations and terms of the lease.

Sec. 5. *Protection of the surface, natural resources, and improvements.* The lessee agrees to take such reasonable steps as may be needed to prevent operations from unnecessarily: (1) Causing or contributing to soil erosion or damaging any forage and timber growth thereon; (2) polluting the waters of springs, streams, wells, or reservoirs; (3) damaging crops, including forage, timber, or improvements of a surface owner; or (4) damaging range improvements whether owned by the United States or by its grazing permittees or lessees; and upon any partial or total relinquishment or the cancellation or expiration of this lease, or at any other time prior thereto when required by the lessor and to the extent deemed necessary by the lessor, to fill any sump holes, ditches and other excavations, remove or cover all debris, and, so far as reasonably possible, restore the surface of the leased land to its former condition, including the removal of structures as and if required. The lessor may prescribe the steps to be taken and restoration to be made with respect to lands of the United States and improvements thereon.

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IN WITNESS WHEREOF:

THE UNITED STATES OF AMERICA

By [Signature]
(Signing Officer)
Manager, Land Office, Bureau of Land
Management, Cheyenne, Wyoming 3-27-61.

WITNESSES TO SIGNATURE OF LESSEE
[Signature]
Secretary

(Title)
WYODAK RESOURCES DEVELOPMENT CORP.
[Signature]
(Signature of Lessee) Vice President

(Signature of Lessee)

(Signature of Lessee)

If this lease is executed by a corporation, it must bear the corporate seal)