



United States
Department of
Agriculture

Forest
Service

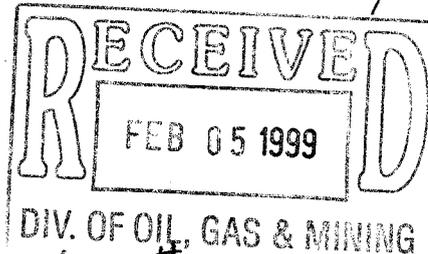
Manti- La Sal
National Forest

Supervisor's Office
599 West Price River Drive
Price UT 84501
Phone # (435) 637-2817
Fax # (435) 637-4940

File Code: 2820-4

Date: February 3, 1999

State of Utah
Attention: Pam Grubaugh-Littig
Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801



*Copy Cover letter
Baron
Joe
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(2-sided)*

Dear Ms. Littig:

ACT/003/005 #2

Enclosed is the Forest Service Decision Memo (DM) regarding subsidence of James Canyon Creek, Canyon Fuel Company, LLC, Skyline Mine. The DM documents the Forest Supervisor's consent/concurrence for subsidence of the perennial portions of James Canyon Creek on National Forest System lands administered by the Manti-La Sal National Forest. Conditions for approval include additional monitoring as listed in the DM at the top of page 2.

Since there were no extraordinary circumstances identified regarding this action and impacts are anticipated to be negligible, the decision was categorically excluded from preparation of an Environmental Assessment (EA) or Environmental Impact Statement (EIS) under Forest Service Handbook 1909.15.

If you have any questions regarding this decision, contact us at the Forest Supervisor's Office in Price, Utah.

Sincerely,

for
JANETTE S. KAISER
Forest Supervisor

Enclosure

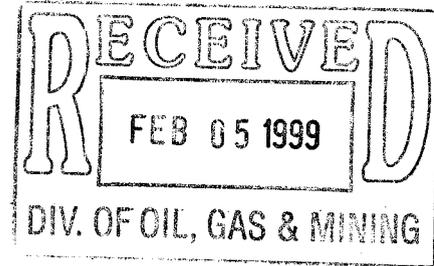
cc:
Dick Manus, BLM Price Field Office (w/encl.)
Dan Meadors, General Manager, Canyon Fuel Company, LLC (w/encl.)
D-2/3 (w/encl.)



Decision Memo

CANYON FUEL COMPANY, LLC UNDERMINING AND SUBSIDENCE OF JAMES CANYON CREEK SKYLINE MINE

USDA Forest Service, Intermountain Region
Manti-La Sal National Forest
Ferron/Price Ranger District



I. INTRODUCTION

The Forest Service has evaluated a proposal by Canyon Fuel Company, LLC, Skyline Mine to undermine and subside perennial portions of James Creek. The proposed subsidence would take place in section 35 of Township 13 South, Range 6 East and section 2 of Township 14 South, Range 6 East, Salt Lake Baseline and Meridian. The attached map shows the project location.

Approximately 1 mile of James Creek is located within the Skyline Mine approved permit boundary, and is part of Federal Coal Lease U-044076. The lease contains a special coal lease stipulation (# 9 from the Forest Plan, Appendix B, and #12 on the lease) that currently does not authorize mining that would subside perennial streams except at specifically approved locations. The stipulation is as follows:

Except at specifically approved locations, underground mining operations shall be conducted in such a manner so as to prevent surface subsidence that would: (1) cause the creation of hazardous conditions such as potential escarpment failure and landslides, (2) cause damage to existing surface structures, and (3) damage or alter the flow of perennial streams. The Lessee shall provide specific measures for the protection of escarpments, and determine corrective measures to assure that hazardous conditions are not created.

The Forest Service must decide whether or not to apply an exception to this stipulation and specifically approve subsidence of James Creek.

James Creek is located immediately south of Burnout Creek, a location where subsidence of a perennial stream has been allowed with intense monitoring of surface effects. The Forest Service Intermountain Research Station, and Canyon Fuel Company cooperated on an intensive 5-year study to monitor the effects of subsidence on the stream and associated habitat within the Burnout Canyon drainage. To date, no discernible adverse effects on stream function or fish habitat from single seam full extraction mining have been documented.

II. DECISION

It is my decision to specifically authorize single seam full extraction mining beneath the perennial reaches of James Creek and consent to the approval of the associated mine permit amendment by the Utah Division of Oil, Gas and Mining under the Mineral Leasing Act of 1920, as amended; Surface Mining Control and Reclamation Act of 1977; Federal Regulations contained in 30 CFR 700 to end, and the Utah Coal Rules.

I have determined that this decision may be categorically excluded from preparation of an Environmental Assessment (EA) or Environmental Impact Statement (EIS) under Forest Service Handbook 1909.15, Chapter 30, Section 31.2(3) and Section 31.1b(7).

- 31.2(3) "Approval modification, or continuation of minor special uses of National Forest System lands that require less than five contiguous acres of land."
- 31.1b(7) "Sale or exchange of land or interest in land and resources where the resulting land uses remain essentially the same."

These categories were determined appropriate because the area affected by this decision is less than 5 acres, negligible impacts to land surface or hydrology are anticipated, and surface uses would remain essentially the same.

Conditions of my authorization include performance of the following:

1. Monthly stream discharge monitoring of James Creek at the existing flume during active subsidence and when accessible.
2. Monthly visual inspection of the perennial portions of James Creek during active subsidence and when accessible.
3. Monthly discharge monitoring at the spring located in the NE 1/4, SW 1/4, of section 35, Township 13 South, Range 6 East, Salt Lake Meridian and Baseline (see attached map) during active subsidence and when accessible.

The mining and reclamation plan, as approved, would provide adequate protection of other Forest resources. There is no need for additional terms and conditions for the protection of other Forest resources within James Canyon as documented in the Burnout Creek study report, since stipulations for the protection of non-coal resources within the lease area remain in effect and are reflected in the existing approved mine permit. The proposal is consistent with all Forest Plan requirements.

This decision is site-specific and was made based on knowledge of how perennial streams in this local area respond to subsidence from single seam full extraction mining within similar geologic formations. The decision does not serve as a broad-based authorization for subsiding perennial streams located on other coal leases on the Manti-La Sal National Forest.

The decision may be implemented immediately and consent letters will be sent to the Bureau of Land Management (BLM), Utah State Director and the Director, Utah Division of Oil, Gas and Mining.

III. DECISION RATIONALE

This decision was made after careful consideration of the proposal, public involvement, and the entirety of the supporting record. No one fact or single piece of information led to this decision. Rather, a combination of factors contributed to it. The key considerations are discussed in the following sub-parts.

Attainment of Agency Goals:

The general purpose and need for this project is to accomplish the following goal of the Forest Plan: "Provide appropriate opportunities for and manage activities related to locating, leasing, development, and production of mineral and energy resources." (Forest Plan, p. III-4).

The project-specific purpose and need of the proposed action is to provide for development of the coal resource to meet the energy needs of the United States while providing protection of natural resources of the National Forest consistent with Forest Service policy and Forest Plan direction.

This decision wholly meets the project's purpose and need. Meeting the purpose and need also allows the BLM to meet their responsibility regarding maximizing recovery of the coal resource.

Application of the Burnout Canyon Research Study:

The Burnout Creek subsidence study was designed to analyze the impacts of undermining and subsiding a perennial stream. It was started in 1992 and continued through 1997 in its initial phase. The study used the adjacent James Canyon as a control, against which to compare the research results and document natural variation during the study period. James Canyon and James Creek are an ideal location at which to confidently apply the results of the study, and permit subsidence, because of the similar morphological and mining conditions in the two drainages. The key similarities are that the geologic strata are identical, the overburden separation (the distance between the elevation of mining and the elevation of the stream) are nearly the same at 600 to 800 feet, and the streams are very similar in fluvial geomorphologic characteristics (i.e. both are alluvial dominated channels and have good alluvial development). The presence of a well-developed alluvial system in Burnout Canyon is thought to have buffered the effects of subsidence (Mattson and Magers, 1995). James Canyon exhibits very similar alluvial development to Burnout Canyon. Further, the orientation of the proposed longwall

panels are the same (perpendicular) to the stream course and the expected extraction height of the coal will be the same. Therefore, similar subsidence and response to subsidence can be expected for James Canyon.

Results of the Burnout Creek study showed some variation in channel characteristics (i.e. ratios of pools, runs, riffles, and cascades), cross sections and longitudinal profile (thalweg), but nothing of consequence that changed the natural character or function of the stream. Some variations in sediment delivery were also noted, but were mainly attributed to climatic variability and normal stream function (USDA-FS, 1998). Stream discharge did not appear to depart from normal seasonal variation or discharge quantity over the course of the study. At one location in Burnout Canyon, it was observed that the channel abandoned a meander along a 200 foot segment, shifting a few feet. This process would likely have occurred naturally, but may have been accelerated due to subsidence. This change did not affect stream discharge or function of the associated habitat.

The Forest Service's previous decision to subside the perennial reaches of Burnout Creek, based on the Environmental Assessment Burnout Creek Subsidence and Upper Huntington Canyon Enhancement (June 1993), included a statement that no other analyses would be undertaken that could result in the undermining and subsidence of perennial streams, "... until the information from the hydrologic study can be documented and extrapolated". The undermining of Burnout Creek was staged to remove a single seam before going on to mine the second (lower) seam. The first seam mining within Burnout Canyon study area was completed and provided the basis for the "Final Report" dated May 20, 1998. The second seam has not been mined. The proposed mining in James Canyon involves mining only one seam, so the application of the study is appropriate, and consistent with the original decision based on the Environmental Assessment Burnout Creek Subsidence and Upper Huntington Canyon Enhancement.

Absence of Extraordinary Circumstances:

Existing resource conditions and potential extraordinary circumstances have been considered in making the decisions.

Steep slopes or highly erosive slopes. Steep or erosive slopes are not an issue, as the project is underground mining that results in subsidence of the ground surface. Additionally, the Burnout Study described above demonstrates that the surface erosion in undermined areas did not exceed naturally occurring levels.

Threatened and endangered species or their critical habitat. This project has been reviewed by the Forest Biologist who determined that subsidence of the project area will not adversely affect Threatened and Endangered species or their critical habitat. A biological evaluation/assessment is in the project file.

Floodplains, wetlands, or municipal watersheds. Subsidence of the project area will not adversely impact floodplains or wetlands, as supported by the Burnout Study. There are no municipal watersheds in or around the project area.

Congressionally designated areas, such as wilderness, wilderness study areas, or National Recreation Areas. There are no wilderness, wilderness study areas, or National Recreation Areas in or around the project area. The nearest Wilderness areas are the Nebo Wilderness located on the Uintah National Forest approximately 30 miles to the northwest and the Dark Canyon Wilderness on the La Sal Division of the Manti-LaSal National Forest, located approximately 120 miles to the southeast of the project area.

Inventoried roadless areas. The project area is not within an inventoried roadless area. The proposal is for subsurface mining operations and will not affect the roadless character.

Research Natural Areas. The project area is not located within any Research Natural Areas (RNAs). The nearest RNAs are Nelson Mountain, west of Ferron, Utah and Elk Knoll in Manti Canyon. The Mont Lewis Botanical Area is located approximately 10 miles to the south of the project area, and will not be affected.

Native American religious or cultural sites, archeological sites, or historic properties or areas. Subsidence of the project area with 600-800 feet of overburden will not damage any cultural or historic properties.

Relationship to Public Involvement:

Public comments were sought and considered for this project. Two responses were received.

The Division of Wildlife Resources provided comments raising concerns pertaining to the groundwater and surface water, unless the Forest Service could demonstrate that there would be no adverse effects. The Burnout Study, as referenced above, demonstrates that no adverse effects to water resources occurred after undermining in the adjacent canyon. The geology and geomorphology of James Canyon is similar enough that it was used as a control for the original study, so it follows that no adverse effects should be seen with the undermining of James Canyon.

The Huntington Cleveland Irrigation Company responded with hydrological considerations, specifically the that water destined for Huntington Creek might be intercepted and diverted through the mine in to the Scofield Drainage. The Forest Service has determined that transbasinal diversions of ground water are not likely, and that subsidence of the perennial stream will not affect the surface water (Burnout Study). Furthermore, surface cracking associated with subsidence has not proven to be continuous in order to allow surface water or precipitation to directly flow into the mine. Cracking in the subsurface heals quickly as clay minerals present in the formations swell and fill the cracks. Only minimal surface tension cracking was observed in the bottom of Burnout Canyon.

The proposal, as submitted, would provide adequate protection of Forest resources. There is no need for additional terms and conditions for the protection of Forest resources within the project area, since stipulations for the protection of non-coal resources associated with the lease remain in effect and are reflected in the existing approved mine permit. Monitoring and repairs of any potential damage are required by the terms and conditions of the lease and the mining and reclamation plan.

IV. PUBLIC INVOLVEMENT

The proposal has been listed in the Forest's *Schedule of Proposed Actions* since June 1998 which is mailed to over 200 individuals and organizations. Legal notices describing the proposal and requesting comments were published in the *Sun Advocate* (Price, Utah) on November 17, 1998, and the *Emery County Progress* on November 17, 1998. Letters describing the proposal and requesting comments were mailed to 12 interested individuals/agencies on November 9, 1998. The two comments received are previously described the Decision Rationale Section.

V. FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS

To the best of our knowledge, the decision would comply with all applicable laws and regulations. In the following, the association of the decision to some pertinent legal requirements are summarized.

National Forest Management Act of 1976: The Forest Plan (1986) was developed as required by this Act. This long-range land and resource management plan provides guidance for all resource management activities in the Forest. The National Forest Management Act requires all projects and activities to be consistent with the Forest Plan. The Forest Plan has been reviewed in consideration of this project. The decision will be consistent with the Forest Plan and this Act.

Mineral Leasing Act of 1920, as amended by the Federal Coal Leasing Amendments Act of 1975: Forest Service consent to approval of mining operations, including conditions for protection of non-coal resources, is required under this Act. This decision memo constitutes Forest Service consent to the BLM.

Surface Mining Control and Reclamation Act of 1977(SMCRA): This Act gives the Department of the Interior, Office of Surface Mining (OSM), primary responsibility to administer programs that regulate surface coal mining operations and the surface effects of underground coal mining operations. Pursuant to sections 503 and 523 of SMCRA, under the oversight of the OSM, the Utah Division of Oil, Gas and Mining regulates surface coal mining and the surface effects of underground coal mining on Federal and non-Federal lands within the State of Utah. On National Forest System lands, consent must be obtained from the Forest Service, as the surface management agency, prior to approval of mining activities, including exploration drilling. This decision memo constitutes Forest Service consent for UDOGM's approval of the mine permit amendment.

National Historic Preservation Act: The decision complies with this Act in that the project would not result in any impacts for cultural or historic resources (see Section III).

Endangered Species Act: The decision complies with this Act in that the project will not result in any impacts to surface resources, therefore there is no need to further evaluate threatened, endangered, or sensitive plant or animal species (see Section III).

National Environmental Policy Act: The entirety of documentation for this project supports that the analysis and decision comply with this Act.

VI. IMPLEMENTATION DATE AND APPEAL OPPORTUNITY

Implementation of the Forest Service decision may occur immediately.

The Forest Service decision is not subject to appeal by the public in accordance with the Code of Federal Regulations Title 36 part 215.

The Forest Service decision is subject to appeal by the applicant under Code of Federal Regulations Title 36 part 251.

VII. CONTACT PERSON

For additional information concerning the Forest Service decision, please contact J. Wade DeFrest at the USDA Forest Service, Manti-La Sal National Forest, Ferron-Price Ranger District Office (address: 599 West Price River Drive, Price, UT 84501; telephone: 435-637-2817).

VIII. SIGNATURE AND DATE



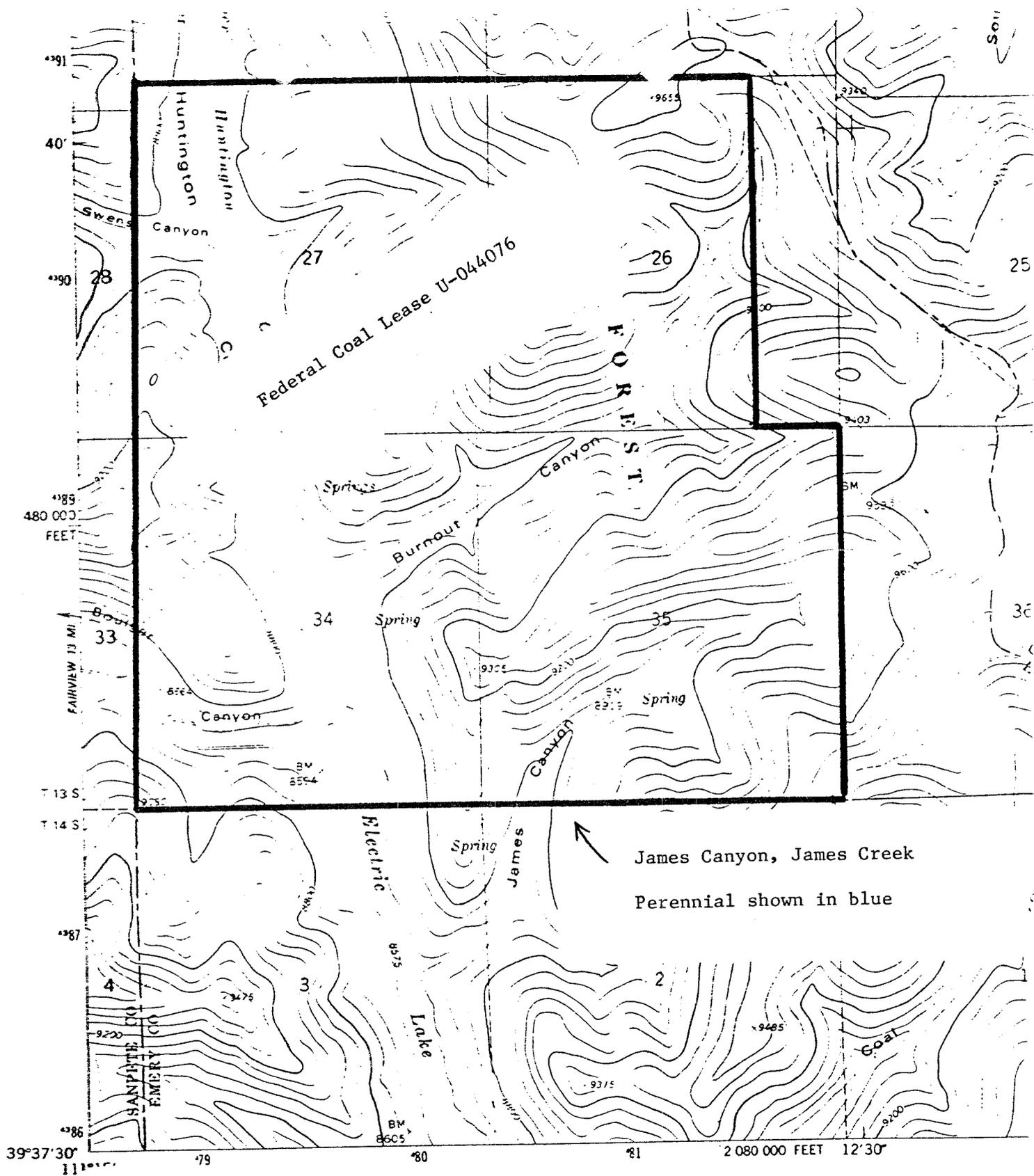
JANETTE S. KAISER
Forest Supervisor (Responsible Official)
Manti-La Sal National Forest

2-2-99
Date

Bibliographic References:

Mattson, L.L and J.A. Magers, 1995. Subsidence Impacts on Ground and Surface Water at a Western Coal Mine. *in* Proceedings of the Joseph B. Poland Symposium on Land Subsidence, Association of Engineering Geologists Annual Meeting.

USDA, Intermountain Research Station, 1998. Skyline Mine Subsidence Study, Final Report

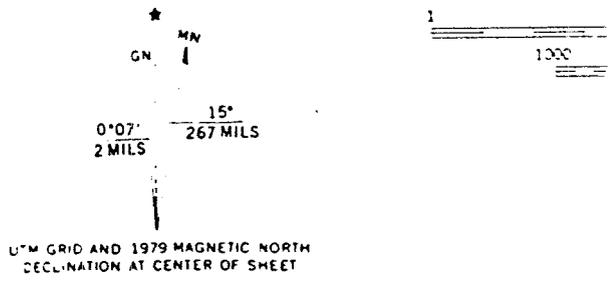


Federal Lease U-044076

Scofield 7-1/2' Quad

1000-meter Universal Transverse Mercator grid ticks, zone 12, shown in blue. 1927 North American datum. Fine red dashed lines indicate selected fence lines.

There may be private inholdings within the boundaries of the National or State reservations shown on this map.



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