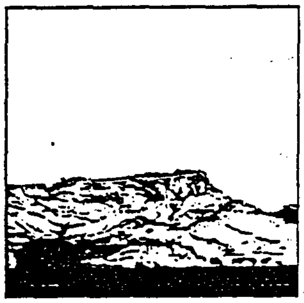
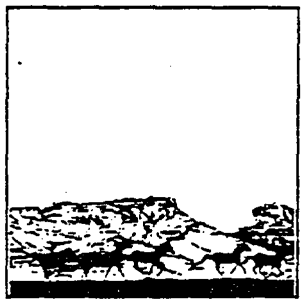
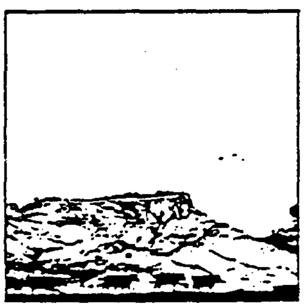
Proposed

# Coal Leasing Area
## RMP Amendment/ Environmental Assessment

**April 1998**







**United States Department of the Interior**

Bureau of Land Management

Farmington Field Office

BEFORE THE
OIL CONSERVATION DIVISION
Case No. 12734 Exhibit No. A 4(c)
Submitted By:
*Richardson Operating Company*
Hearing Date: November 11,2001

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington Field Office
1235 La Plata Highway, Suite A
Farmington, New Mexico 87401


IN REPLY REFER TO:

April 21, 1998

Dear Reader:

Enclosed for your review is a proposed amendment to the Farmington Field Office's Resource Management Plan (RMP). The information and analysis in this document is concerned with the proposed leasing of coal adjacent to San Juan Coal Company's (SJCC) "Deep Lease". Work on the amendment began last fall. A public hearing was held October 7, 1997 to solicit input from interested public and concerned individuals and companies.

An environmental assessment (EA) has been prepared as part of this document, The EA is used to analyze the impacts of coal leasing (and mining) to the resources in the proposed leasing area. The RMP amendment/EA has been prepared in response to the filing of a Lease by Application (LBA) by San Juan Coal Company. This application was filed in BLMs New Mexico State Office on July 29, 1997. The decision, for amending the current RMP, is consistent with the guidance mandated by the Federal Land Policy and Management Act of 1976 and Title 43 Code of Federal Regulations, Part 1610.5-5.

You are encouraged to review this RMP amendment/EA and provide comments to Farmington Office staff. There ~~will be a~~ 30 day review and comment period. The comment period begins on April 27 and ends May 26, 1998. Comment letters need to be sent to the following address. A public hearing/public meeting will be held on May 6, 1998 at 7:00 p.m. in the BLM Office.

BLM Farmington Field Office
Attn: Robert Moore
1235 La Plata Highway, Suite A
Farmington, New Mexico 87401

Comments received by the May 26th date will be considered in the decision making process. This process follows the evaluation of public comments and/or resolution of any protests. A final decision will be made and issued in a Decision Record.

Any part of the proposed plan may be protested. Protests must be (1) post marked by May 26, 1998 and (2) sent to the following address.

Director (W. O. 210)
Bureau of Land Management
Attention: Brenda Williams
1849 C Street NW
Washington, D.C. 20240

Any protest must include the following information.

1. Name, address, telephone number and interest of the person filing the protest.

2. A statement of the issue(s) of concern(s) being protested.

3. A statement of the part(s) being protested.

4. A copy of all documents addressing the issues or concerns that were submitted during the planning process by the protesting party or an indication of the date the issues or concerns were discussed for the record.

5. A concise statement explaining why the BLM New Mexico State Director's proposed decision is wrong. Only those persons or organizations who previously participated in the planning process, as demonstrated in 4 above, may protest.

At the end of the 30-day protest period and following a review by the Governor of New Mexico, the proposed plan, excluding any portion under protest, will become final. A Decision Record will be published and sent to all on the mailing list following the resolution of any protest. Your participation in this planning process is greatly appreciated.

Sincerely,

Lee Otteni

Lee Otteni
District Manager

# Table of Contents

## ENVIRONMENTAL CONSEQUENCES



## CONSULTATION AND COORDINATION



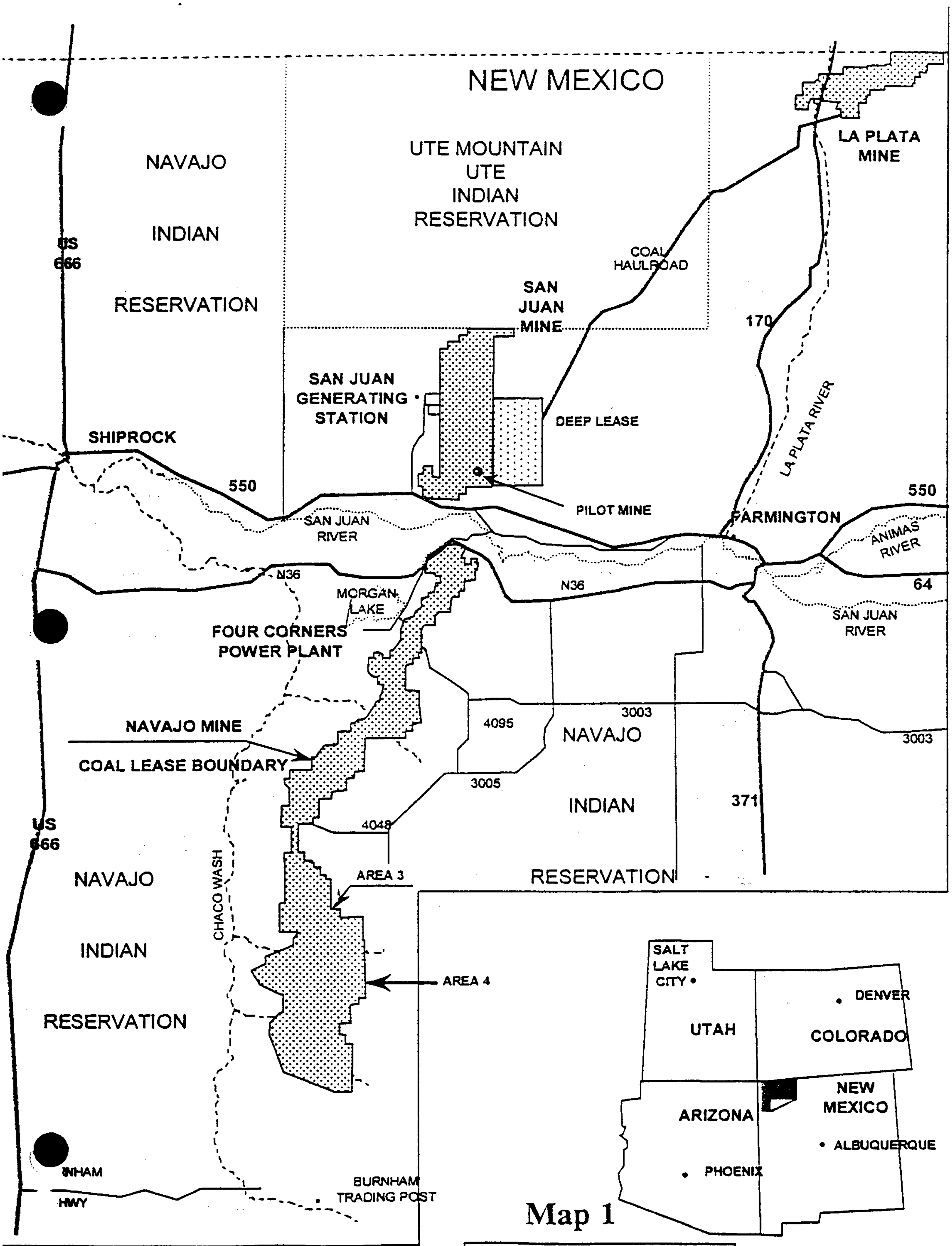
## TABLES



## MAPS

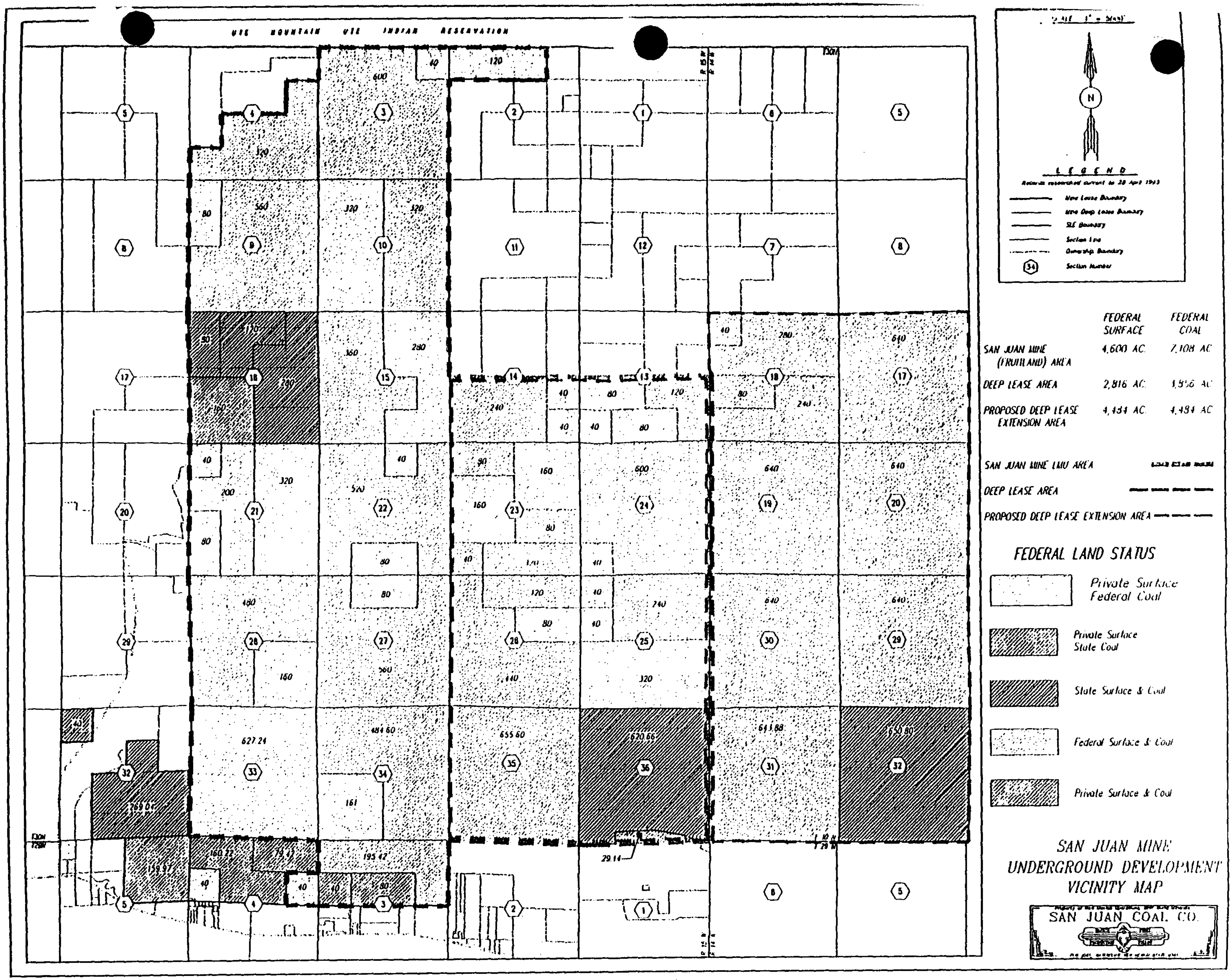


## APPENDICES




Map 1

General Location Map


UTE MOUNTAIN UTE INDIAN RESERVATION
LEGEND
Records researched current to 28 April 1993
Mine Lease Boundary
Mine Deep Lease Boundary
SLE Boundary
Section Line
Ownership Boundary
Section Number
FEDERAL SURFACE
FEDERAL COAL
SAN JUAN MINE (FRUITLAND) AREA 4,600 AC. 7,108 AC
DEEP LEASE AREA 2,816 AC
PROPOSED DEEP LEASE EXTENSION AREA 4,434 AC 4,434 AC
SAN JUAN MINE LMU AREA
DEEP LEASE AREA
PROPOSED DEEP LEASE EXTENSION AREA
FEDERAL LAND STATUS
Private Surface Federal Coal
Private Surface State Coal
State Surface & Coal
Federal Surface & Coal
Private Surface & Coal
SAN JUAN MINE
UNDERGROUND DEVELOPMENT
VICINITY MAP
SAN JUAN COAL CO.

Map 2

maximum of 40 feet wide times the length of the line. Pipe line ties range in length from a quarter to one mile. These impacts are projected to last from six months to two years, until the growth of new vegetation is established. There will be less soil disturbance with the relocation of power lines. The primary disturbance will occur at the site of pole installation.

Unlike surface mining, soils will not be removed or displaced. There may be a gradual sloping and surface cracking of soil in areas where subsidence features are more prevalent. This sloping effect and surface cracking would be associated with the caving of strata as it fills the underground voids. Soil may "bow" as the strata "bows" but there would not be an intermingling of discrete soil horizons at the surface.

If the current management is continued there would be no impact to soils.

## Hydrology

Under the proposed action there would be no impacts to the surface hydrology. Except for minor changes in their route, due to subsidence, major drainages such as Hutch Canyon and Stevens Arroyo would not be affected by the proposed action. Contribution to the San Juan River and ultimately to the Colorado River would not increase due to minimal surface disturbances and natural occurring geologic formations. Underground mining would not contribute to the sediment load flowing into the river system.

Shallow aquifers, associated with the coal seams in the proposed lease area, would be affected. The amount of water in these seams is not significant and would be removed as a result of mining. The water is poor quality due to contact with the coal seam. The system would recharge itself after the coal is removed. These water tables are recharged by precipitation along ephemeral channels.

If the current management continues there would be no change to the hydrology.

## Coal Resources

Under the proposed action, the RMP would be amended and 80 to 110 million tons of recoverable coal resources would be made available for leasing and development.

Under the current management, the coal resources in the proposed lease area would not be mined. Because of the economics of starting up a mine, it is quite likely coal will never be mined if it isn't mined with SJCCs Deep Lease. Approximately 80 to 110 million tons of coal would remain unmined.

## Oil and Gas

Under the proposed action, any oil and gas leases that expire would not be re-issued until coal mining has been completed. This would eliminate these areas from potential oil and gas development until approximately 2024 or until the company has completed mining, use of surface facilities and released specific areas.

Existing leases, held by production, would continue to be developed and existing wells would continue to produce, as they have in the past. The development of existing leases, under the proposed action, would be coordinated with the coal mining company and could be delayed, until mining has been completed in a specific area. Specific agreements, reached between the coal mining company and the operator of existing oil and gas wells, would determine the type and level of impact to oil and gas production.

There would be no impact, if the mining company mines around a well or if a well is plugged prior to the mining operation. Currently, there are five producing Dakota wells in the north-northwest corner of the proposed leasing area. Two wells were drilled in 1982, a single well in 1983 and two in 1989. As is shown on Map 3, mining in this area is projected to begin in 2013 and 2014. Although the life of these wells is not known, some or all of these wells may be plugged and abandoned by the time the coal company is ready to begin coal mining in the area.

At a minimum, the coal company would be required to mine around existing oil and gas wells. As is noted on page 10 of this document, the mining company is required to "...establish and maintain barriers around...oil and gas wells in accordance with State laws and regulations..." SJCC is committed to "...take all reasonable steps to avoid adverse impacts on oil and gas...gathering and transportation facilities...These steps may include, but are not limited to, moving existing facilities and relocating lines which may be affected by subsidence." (see Appendix A). BLM staff may authorize temporary surface pipe lines, as an interim measure, to insure continued production of wells.

There are two Picture Cliff wells and a single Fruitland well in the southern portion of the proposed lease area. A Picture Cliff well was drilled in 1953 and 1985. The second, newest well is in section 31 (state) and is currently shut-in. The 1953 well is still producing product. A Fruitland well, drilled in 1990, is currently shut-in. All of the wells have been drilled by Dugan Production Corp.

Because the Picture Cliff Formation is located under the Fruitland Formation, product may not be available for removal from the Picture Cliff and Fruitland wells after Fruitland coal is mined. In that case, one or more of the mitigation measures, listed in Appendix A, will be considered and selected to mitigate impacts to the oil and gas lessees/operators. "If the adverse impact requires that production permanently cease, SJCC will compensate the producer for the fair market value of lost production (see Appendix A).

If the current management is continued, the area would remain open to additional oil and gas leasing under standard terms and conditions. The existing leases would continue to be developed and existing wells would continue to produce, as they have in the past.

## Rights-of-way

Under the proposed action, the proposed lease area would be closed to the processing and granting of rights-of-way, except those that are needed for the mining operation. The effects of the proposed action on existing rights-of-way is uncertain.

There is the potential that the proposed action would have no affect on some of the rights-of-way due to the small amount of expected subsidence. The effects of the proposed action on the various rights-of-way would be closely monitored throughout the life of the project. It may be necessary to re-route some of the rights-of-way based on the monitoring. If there is concurrence by the mining company to avoid mining along the southern boundary, most right-of-way impacts would be avoided. If the company decides to mine coal along the south boundary, pipe lines and power lines would probably need to be moved before mining could occur. The cost of moving these lines versus the value of the coal will be the determining factors, as to whether mining will occur along the south boundary.

If the current management is continued, there would be no impact to rights-of-way. The area would remain open to the processing and granting of rights-of-way.

## Livestock Grazing

Under the proposed action the impact on grazing would be minimal. A small amount of forage will be removed for the construction of vents and service roads. Nothing planned under the proposed action would remove enough

PROTOCOL FOR THE MEDIATION
OF ADVERSE IMPACTS ON OIL AND GAS REVENUES

This protocol sets forth the commitments made by the San Juan Coal Company (SJCC) regarding potential impacts which its underground coal mining operations may have on oil and gas production, gathering or transportation. This protocol is entered into for the purpose of documenting SJCC's proposed actions to mitigate adverse impacts and allow the Bureau of Land Management to analyze impacts of leasing underground coal reserves in its land use planning process.

## Affected Areas

The lands to be affected by mining which are subject to the terms of this Protocol are located in San Juan County, New Mexico and are described as follows:

Township 30 North, Range 14 West, NMPM

| | |
|---|---|
| Section 17: | All |
| Section 18: | All |
| Section 19: | All |
| Section 20: | All |
| Section 29: | All |
| Section 30: | All |
| Section 31: | All |

Township 30 North, Range 15 West, NMPM

| | |
|---|---|
| Section 13: | S1/2 |
| Section 14: | S1/2 |
| Section 23: | All |
| Section 24: | All |
| Section 25: | All |
| Section 26: | All |
| Section 35: | All |

## General Principles

SJCC will conduct its operations in a manner consistent with the legally mandated principles of multiple use of federal lands and mineral reserves. SJCC will use its best efforts to achieve maximum economic recovery of federal resources. Valid existing rights under federal oil and gas leases as well as the 40 acre private oil and gas lease 7 located on the NW 1/4 N W 1/4 of Section 18, which predate SJCC's coal leases, will be honored.

**Commitments**

1) SJCC will take all reasonable steps to avoid adverse impacts on oil and gas resource production, gathering and transportation facilities. These steps may include, but are not limited to, mining around existing well bores, moving existing facilities, and relocating power lines, pipelines or roads which may be affected by subsidence. Costs for avoidance measures for facilities with rights senior to SJCC will be paid by SJCC.

2) Adverse impacts will be considered to have occurred when a demonstrable loss of revenue from the facility occurs If SJCC's coal mining activities adversely impact an oil and gas producer with rights which are senior to SJCC, then steps to mitigate those impacts will be taken as follows:

   a) If the adverse impacts can best be mitigated by paying damages for decreased production, SJCC will pay fair market value for appropriate mitigation measures.

   b) If the adverse impact requires that production permanently cease, SJCC will compensate the producer for the fair market value of lost production. Fair market value will be the projected future net cash flow, i.e., Gross projected revenues, less applicable royalties and over riding royalties, taxes and cost of production, gathering, transporting, processing and shrinkage, discounted at a rate equal to the prevailing prime interest rate during the prior month that the analysis is performed plus two percentage points. The projected net cash flow will be determined using the following parameters:

      i) Working and net revenue interest, operating costs, gas analysis, and run and or settlement statements supplied by the producer.

      ii) A gas price equal to the higher of the previous twelve month Inside FERC index for the San Juan Basin or the average one year contract available from three gas marketers. All prices will be adjusted for the current rates for field transportation, gathering, processing and shrinkage.

      iii) An oil price equal to the higher of the previous twelve month average oil price received for like gravity oil in the San Juan Basin or the average of a one year contract available for at least three crude oil purchasers. The price used will be adjusted for any standard deductions.

iv) Produce prices will be escalated at three (3) percent and direct operating expenses will be escalated at four (4) percent.

v) SJCC will be authorized to audit and confirm all data and information provided under paragraphs 2(b)(i)(ii)(iii) and (iv).

vi) If it is legally determined that a payment to the royalty and/or over riding royalty interest holder, or severance tax to the state of New Mexico is required as a result of the cessation of production, a payment will be based on the projections in 2b discounted at a rate equal to the prevailing prime interest rate during the prior month that the analysis is performed plus two percentage points.

c) In the event SJCC and the oil and gas interest holder do not agree to a value for mitigation using the factors described in paragraph 2 (a) and (b), then the parties will enter into binding arbitration using a mutually agreeable neutral third party to resolve the dispute.

d) SJCC shall pay for the direct, actual costs to reroute power lines, pipe lines or roads with senior rights to SJCC where necessary to avoid adverse impacts.

3) SJCC will be responsible for paying for plugging wells which are subject to this protocol that must be mined through in the course of its mining operations. Said wells must have been completed in accordance with BLM regulations and must have been determined to be capable of producing in paying quantities per BLM guidelines.

This Protocol is submitted to the Bureau of Land Management on this 10th day of September 1998.

**SAN JUAN COAL COMPANY**

By: Chris S Ellyson