

Coastal States Energy Company  
Southern Utah Fuel Company  
Public Road Access Documentation  
Convulsion Canyon Road

Coastal States Energy Company  
Southern Utah Fuel Company  
Public Road Access Documentation  
Convulsion Canyon Road

Vernal J. Mortensen  
Vice President  
Utah Operations

**RECEIVED**

APR 12 1984



**Coastal States  
Energy Company**

411 West 7200 South  
Midvale, Utah 84047  
(801) 566-7111

**DIVISION OF OIL  
GAS & MINING**

Subsidiary of  
The Coastal  
Corporation

March 12, 1984

Dr. Dianne Nielson  
Director  
Division of Oil, Gas & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

Dear Dr. Nielson:

In compliance with the public roads criteria for coal haulage and access roads (revised) approved by Board of Oil, Gas & Mining, I am attaching herewith documentation verifying Coastal States position that the access road to the SUFCo minesite meets the public road standard.

Prior to 1977 the access road to the SUFCo minesite was a gravel Forest Service road and was extensively used by the public for access to the National Forest. In a memorandum of understanding dated April 29, 1977, between Fishlake National Forest, U.S. Forest Service and the Sevier County of Utah, the forest road was reclassified as a Minor Collector road and was included in the Sevier County Collector Road System as county road #4008. This reclassification allowed the 1977 Legislature to pass a bill providing \$1,200,000 from prepaid taxes, under the provision of the Resource Development Act.

On June 23, 1977, Coastal States Energy entered into an agreement with Sevier County to upgrade the collector road per Utah Department of Transportation direct supervision and specifications. This agreement allowed for Coastal States Energy to prepay \$1,200,000 in taxes for the initial construction and recoup these moneys by exemption from sales and use taxes until the \$1,200,000 is reached. This agreement also states that the Sevier County will expend toward maintenance of the collector road those revenues which the county receives under the state law by virtue of the roads inclusion in the county road system. Thus, the initial upgrade costs were paid for with public funds as well as state revenues for maintenance.

Dr. Dianne Nielson  
March 12, 1984  
Page Two

The collector road provides year round access to the users of the National Forest such as livestock permittees, timber management, recreational sub-division owners, recreationists who hunt, fish, snowmobile, sightsee, gather firewood, as well as the public that purchases coal F.O.B. the minesite.

The collector road upgrade does end at the SUFCo's permit area but the Forest Service/BLM Public Road continues eastward to connect with Utah State Highway 10, approximately 5 miles south of Emery, Utah.

Attached are several documents that support our position that the access road to the SUFCo minesite cannot be considered a haul road, and does meet the criteria the Division is using to define a public road.

Contents of Documentation supporting SUFCo access as a public road:

1. Forest Service letter stating understanding of public use - dated November 28, 1983.
2. Forest Service memorandum of understanding - dated April 29, 1977.
3. Sevier County letter stating understanding of public use - dated November 15, 1983.
4. Agreement between Sevier County and Coastal States Energy - dated June 23, 1977.
5. Copies of invoices from U.D.O.T. to Sevier County for maintenance work from 1978 through 1983.
6. Copy of invoice SUFCo submitted to Sevier County to repair mud slide - dated September 9, 1983.
7. Series of photographic plates, 1 through 28 documenting public use of the SUFCo mine access road on a year round basis.

It is our position that the SUFCo minesite access road clearly meets the criteria established by the Board of Oil, Gas & Mining as a public road. The attached documents illustrate beyond all doubt that the road is classified by Sevier County and other public bodies as a public use road, and also meets the following criteria:

Dr. Dianne Nielson  
March 12, 1984  
Page Three

1. The road is constructed to UDOT and county standards.
2. It has been and is funded with public funds.
3. The road has substantial public use.
4. It provides access to many public use sites such as private homes, fishing, hunting, mining, timber harvesting, snow-mobiling, and other recreational pursuits.
5. Coastal States Energy Company nor Southern Utah Fuel Company has authority to deny public use of the road at any time.

Your prompt attention to and approval of the SUFCo minesite road as a designated public access road is appreciated.

Sincerely yours,

  
Vernal Q. Mortensen  
Vice President  
Utah Operations

VJM:k1

Enclosures

FOREST SERVICE  
DOCUMENTS



United States  
Department of  
Agriculture

Forest  
Service

Richfield Ranger District  
115 East 900 North  
Richfield, Utah 84701

Reply to: 2820

Date: November 28, 1983

Ken Payne  
Vice President  
SUFCo  
P.O. Box P  
Salina, Utah 84654

Dear Ken,

Enclosed is the memorandum of understanding between the Forest Service and Sevier County, which makes the road from Exit 72 on Interstate 70 to the Convulsion mine a public road.

In our opinion there is no way this road can be considered an exclusive coal haul road and fall under OSM regulations.

The road is used by several kinds of users of the National Forest such as livestock permittees, recreationists who hunt, fish, sight see, and haul firewood. Since the road right-of-way is only 66 feet wide that doesn't leave much room for sediment ponds.

The Forest Service is not ready to grant additional right-of-way. If you need additional information please let us know.

Sincerely,

*for* *Darrel Hintze*  
CHARLES R. ALLRED  
District Ranger



46015

MEMORANDUM OF UNDERSTANDING

This MEMORANDUM OF UNDERSTANDING entered into this 29 day of April, 1977, by and between the UNITED STATES OF AMERICA, acting by and through the FOREST SUPERVISOR, FISHLAKE NATIONAL FOREST, U.S. FOREST SERVICE. The SEVIER COUNTY, of UTAH, acting by and through its COMMISSION. (16 USC 535 and 23 USC 205)

WITNESSETH:

WHEREAS, Sevier County has expressed a willingness to maintain and improve a road provided that the road can be placed on the Utah "B" System and County Collector Road System and the County funds thus being augmented, and

WHEREAS, the State regulations require that the County must have jurisdiction and that the roads be public roads in order to qualify for assistance under the "B" System, and

WHEREAS, the subject road is functionally classified as a Minor Collector and qualifies for inclusion in the County Collector Road System, and

WHEREAS, the 1977 Legislature passed a bill providing \$1,200,000.00 from prepaid taxes, under the provisions of the Resource Development Act for the improvement of this energy haul road, and

WHEREAS, the proposed roadway for inclusion involves approximately 4.0 + - miles of roadway on private land and 6.0 + - miles on public land with a minimum of 66 foot right-of-way in the Fishlake National Forest as related on the attached map, and

WHEREAS, additional maintenance and improvement of the road will be of great assistance to the Sevier County residents and the State of Utah.

NOW, THEREFORE, the parties agree to cooperate to permit the inclusion of approximately 6.0 + - miles of road with a 66-foot right of way to be placed on the County "B" System within the Fishlake National Forest.

That the map attached relating to the Forest road that is to be included in the Sevier County "B" System be hereby incorporated as a part of this Memorandum of Understanding.

THE U. S. FOREST SERVICE:

1. Agrees to grant non-exclusive rights of way to 4.0 + - miles of roadway on private land for which the Forest Service has acquired right of way easement, and 6.0 + - miles of roadway on public land to Sevier County to permit the jurisdiction, maintenance, and improvement of the road by Sevier County.
2. Agrees that this road is and will remain open to the public travel.

SEVIER COUNTY:

1. Agrees to accept the jurisdiction and maintenance responsibility of the road with the understanding that it be included in the County "B" System. As used herein, the term "maintenance responsibility" shall include the furnishing of such service, equipment, and material as deemed necessary by the County, with due regard to road conditions, frequency of road use, weather conditions, funding received for maintenance of said road, and such other factors as influence and relate to the overall management of the entire county road system.

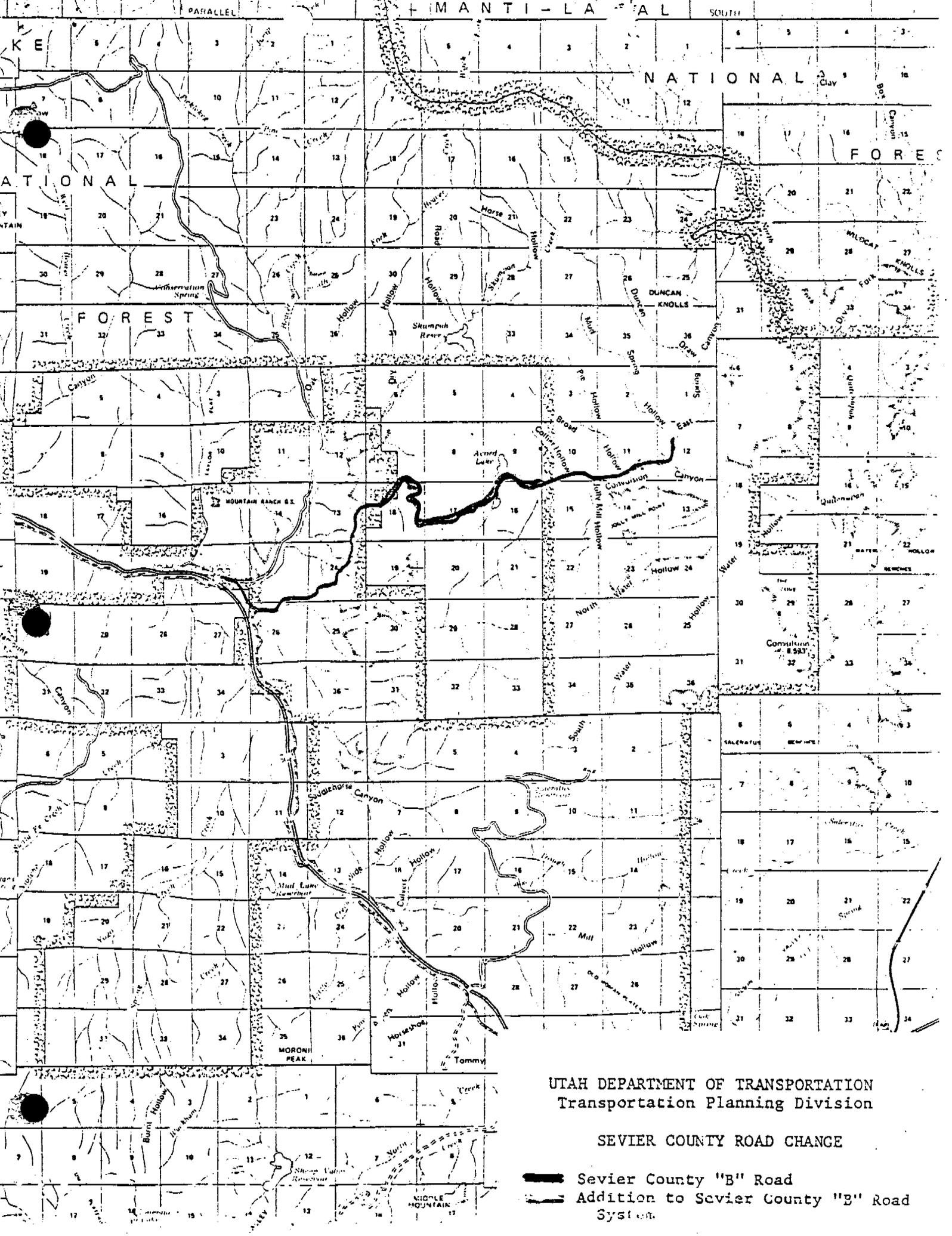
IN WITNESS WHEREOF, the parties have caused this Memorandum of Understanding to be executed as of the day and year first above written.

APPROVED:

  
\_\_\_\_\_  
U. S. Forest Service

  
\_\_\_\_\_  
Commissioner, Sevier County, Utah

5/13/76  
12:00 PM



UTAH DEPARTMENT OF TRANSPORTATION  
 Transportation Planning Division

SEVIER COUNTY ROAD CHANGE

-  Sevier County "B" Road
-  Addition to Sevier County "B" Road System

SEVIER COUNTY  
CORRES.

# Sevier County

COMMISSIONERS:  
ELMO R. HERRING  
M. ASHMAN  
HEER COLLINGS

County Courthouse  
250 North Main  
Richfield, Utah 84701

DE VON POULSON, Clerk-Auditor  
STANFORD FILLMORE, Assessor  
LEDA JENSEN, Treasurer  
BESSIE N. CURTIS, Recorder  
RULON DON BROWN, Attorney

November 15, 1983

Mr. Ken Payne  
Vice President and General Manager  
Southern Utah Fuel Company  
Post Office Box P  
Salina, Utah 84654

Dear Ken,

This letter addresses the maintenance and access to County Road #4008 terminating at the Convulsion Canyon Mine. Sevier County has consistently considered the road to be a public right-of-way and has at all times held that access is available to any and all persons. In addition, the County has controlled and supervised the maintenance and construction activities associated therewith.

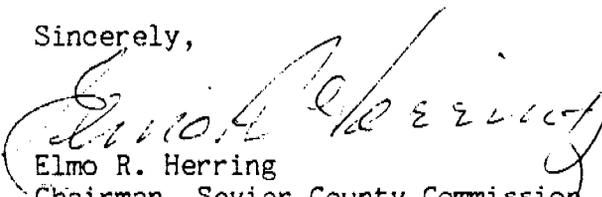
You may recall that substantial improvements to the roadway were instigated pursuant to an agreement entered in June, 1977 between State agencies, the County and Coastal States Energy Company. The agreement, which granted Coastal States Energy permission to use the County Road as a mine access road, specifies that the County will utilize available resources for maintenance and enlist the aid of Coastal States for supplementary funding and/or labor and materials so long as the company is a user of the road. The County Commission in no way contends that the status of the eleven mile roadway as a public way has been changed.

The road is of considerable importance to the County, not only as related to mining activity, but also for its recreational and agricultural significance. The continued development in the area of recreational subdivisions, wildlife habitat, timber management, hunting, fishing and cattle operations indicates increased future public usage. At present, a proposal for a new cabin site subdivision is under consideration by the Commission.

Your past cooperation in meeting the County maintenance standards is appreciated and I'm sure we can rely on the same attitude in the future.

Thank you for your attention to this matter.

Sincerely,

  
Elmo R. Herring  
Chairman, Sevier County Commission

ERH:klm

AGREEMENT - SEVIER CO. & CSEC

A G R E E M E N T

THIS AGREEMENT, made and entered into this 23<sup>rd</sup> day of JUNE, 1977, by and between SEVIER COUNTY, Utah, (hereinafter sometimes referred to as "County"), for itself; the UTAH DEPARTMENT OF TRANSPORTATION (hereinafter sometimes referred to as "UDOT"), for itself and as agent for the Utah State Tax Commission and Sevier County, Utah; and COASTAL STATES ENERGY COMPANY, a corporation organized and existing under the laws of the State of Texas, for itself and its affiliated companies (hereinafter sometimes collectively referred to as "Developer").

I.

DEFINITIONS

When used in this Agreement, the following terms shall have the meaning indicated:

- 1.1 "State" shall mean and refer to the State of Utah.
- 1.2 "Legislature" shall mean and refer to the Legislature of the State of Utah.
- 1.3 "County" shall mean and refer to Sevier County, Utah.
- 1.3a "Contractor" shall mean any independent contractor employed by UDOT under proper contract to complete Said Work.
- 1.4 "UDOT" shall mean and refer to the Utah Department of Transportation.
- 1.5 "Tax Commission" shall mean and refer to the Utah State Tax Commission.
- 1.6 "Developer" shall mean and refer to Coastal States Energy Company and its affiliated companies.
- 1.7 "Act" shall mean and refer to the Resource Development Act enacted by the 1975 General Session of the Legislature of the State of Utah.

1.8 "Facility" shall mean and refer to a "natural resource facility" as that term is defined in the Resource Development Act.

1.9 "SUFCO Mine" shall mean and refer to the Southern Utah Fuel Company coal mine located approximately thirty (30) miles east of Salina, Utah, in Spring Canyon, a northside tributary of Convulsion Canyon.

1.10 "Road" shall mean and refer to that certain road extending for some ten (10) plus miles from Exit 72 on I-70 to the SUFCO Mine.

1.11 "Said Work" shall mean and refer to the preliminary engineering to complete the drawings and specifications for improvements to the Road, construction, engineering and administration, and the construction of a gravel base; an all-weather surface for the Road, strengthened to support repeated axle loadings; and such other improvements to the Road in accordance with the terms of this Agreement and all labor and materials used in connection therewith.

1.12 "Drawings and Specifications" shall mean and refer to all drawings (preliminary, schematic, working or otherwise), layouts, flow diagrams, studies, reports, subsurface explorations, surveys (including topographical), specification lists describing the materials and workmanship required and procedures to be followed, construction cost estimates and all other data and documents necessary or desirable in connection with the performance of Said Work, including any and all revisions and modifications thereof, and including the data and documents provided by any special consultants.

1.13 "Labor" shall refer to and include all labor, supervision and all other services and supervision required for the full performance of Said Work by UDOT, or their official representative.

1.14 "Materials" shall refer to and include all materials, supplies, machinery, equipment, apparatus, appliances, tools

and fuel required for the full performance of Said Work.

1.15 "Cost" or "costs" as used herein shall mean and refer to all costs necessarily incurred by UDOT in the performance of Said Work, calculated in accordance with the usual and normal accounting procedures of the UDOT.

II.

RECITALS

2.1 Developer is engaged in the development or utilization of natural resources in the State through a Facility.

2.2 Developer has determined with the concurrence of the UDOT that the performance of Said Work will be necessary to provide adequate access to the Facility.

2.3 For the purpose of improving the Road, Developer desires to prepay to the Tax Commission a portion of the sales and/or use taxes which Developer anticipates will be imposed by Chapters 15 and 16, Title 59, Utah Code Annotated, 1953 as amended in connection with Developer's operations in Utah, including sales and/or use taxes anticipated to be imposed upon the agents, contractors and subcontractors of Developer.

2.4 The U.S. Forest Service has conveyed title and jurisdiction of the Road by action separate from this Agreement to the County.

2.5 UDOT, after determining the highway needs in the area of the Facility, has reclassified the Road as a Minor Collector of the State Collector Road System and, acting as agent for the County, intends to perform Said Work under contracts with private independent contractors.

2.6 UDOT has assessed the benefits to be derived by the public from the improvements to the Road and has recommended to the Legislature that the Legislature appropriate as a special grant to the County the sum of ONE MILLION TWO HUNDRED THOUSAND

and NO/100 DOLLARS (\$1,200,000.00) for the performance of Said Work.

2.7 UDOT has determined that Said Work cannot be financed with existing public funds and that Said Work would be unduly delayed until public funds are otherwise available.

2.8 The Legislature has appropriated, as a special grant to Sevier County, funds for the performance of Said Work, said appropriation being in the sum of ONE MILLION TWO HUNDRED THOUSAND and NO/100 DOLLARS (\$1,200,000.00).

2.9 County, UDOT and Developer mutually desire to define the manner of prepayment of sales and/or use taxes by Developer in accordance with the Act to provide assurance to the County and UDOT of the availability of necessary funds for the performance of Said Work and also to allow Developer the opportunity to use said funds for its own purposes until Developer is required to pay the same to the Tax Commission as set forth below in Paragraph 4.10 of this Agreement.

### III.

#### CONDITIONS PRECEDENT

County, UDOT and Developer hereby agree that the covenants and understandings of the parties set forth below are expressly subject to and contingent upon:

- (1) The prior conveyance of the title of the Road from the U. S. Forest Service to County; and
- (2) The reclassification of the Road after said conveyance as a Minor Collector and a part of the State Collector System.

### IV.

#### COVENANTS AND UNDERSTANDINGS

In consideration of the mutual promises and covenants herein contained and other good and valuable consideration, the

receipt and sufficiency of which are hereby acknowledged,  
IT IS AGREED AND UNDERSTOOD BY THE PARTIES HERETO AS FOLLOWS,  
to-wit:

4.1 Prepaid-Taxes - Developer hereby agrees to pay to the Tax Commission the sum of ONE MILLION TWO HUNDRED THOUSAND and No/100 DOLLARS (\$1,200,000.00) in the form of prepaid sales and/or use taxes, as provided by the Act. These funds shall be used solely in the performance of Said Work. Notwithstanding anything contained in this Agreement to the contrary, said prepaid sales and/or use taxes need not be prepaid in one (1) sum by Developer but shall be paid in progress payments by Developer as set forth below in Paragraph 4.10.

4.2 Appointment of Agency - County and the Tax Commission hereby appoint UDOT as agent for each of them with complete authority to act for either of them without further consultation with either of them in regard to any and all matters arising under the terms of this Agreement.

4.3 Statement of Work - UDOT, acting as agent for County, agrees that it will forthwith commence or cause to be commenced the performance of Said Work. UDOT or its contractors shall furnish all labor, equipment and materials for the construction, engineering and administrative work necessary to complete the drawings and specifications for an all-weather surface for the Road consisting of a gravel base and a dust oil treatment and shall furnish all labor, equipment and materials for the construction of said base and surface for the Road. Such construction will provide the addition of approximately twenty (20) inches of untreated gravel base over the existing roadbed which is approximately forty (40) feet wide consistent with rules and regulations adopted concerning collector road design or designs for the Road. Along the center of said roadbed will be located a minimum twenty (20) foot-wide travel way treated with a dust oil

surface designed to penetrate and bind the surface of the Road for a period of approximately three (3) years. The UDOT District Three Preconstruction Engineer has estimated that the cost of the performance of Said Work will be approximately ONE MILLION TWO HUNDRED THOUSAND and NO/100 DOLLARS (\$1,200,000.00). Of this amount it is estimated that Fifty Thousand and No/100 Dollars (\$50,000.00) will be required for preliminary engineering of Said Work and that One Million One Hundred Fifty Thousand and No/100 Dollars (\$1,150,000.00) will be needed for the construction of Said Work. The parties agree that the estimated cost of Said Work may be adjusted by the written mutual agreement of UDOT and Developer, provided any amount in excess of the legislative appropriation will require further approval by the Utah Legislature. UDOT, as a part of the cost, shall furnish Developer with a copy of the drawings and specifications and all revisions and modifications thereof. UDOT agrees to furnish its best skill and judgment and to cooperate with Developer in the preparation of the drawings and specifications. UDOT also agrees to furnish efficient business administration and superintendents and to complete the performance of Said Work with a minimum of interference with Developer's development or utilization of its Facility and in the best and most expeditious and economical manner consistent with the interests of Developer and the State.

4.4 Preparation of Contracts by UDOT - UDOT shall prepare the necessary contract documents, advertise for bids and award contracts to the low bidders for the performance of said work.

4.5 Control of Work by UDOT - It is understood and agreed by and between the parties hereto that this Agreement is entered into for the purpose of providing funds for the performance of Said Work through the utilization of prepaid sales and/or use

taxes and that UDOT will be solely responsible for determining the appropriate construction requirements to meet the needs of the motoring public for the classifications assigned to the Road. UDOT, however, shall consider incorporating into Said Work any information or data furnished by Developer to UDOT, and UDOT shall not order or permit any change in Said Work which significantly deviates from the description of Said Work contained above in Paragraph 4.3 without first consulting with Developer.

4.6 Maintenance - The County agrees to expend toward maintenance of the road only those revenues which the County receives under the then existing state law by virtue of the Road's inclusion in the County road system. Such revenues received by the County in any one year need not be expended during that year but may be accumulated and/or expended consistent with state law. It is expressly understood that, based on current revenue, the amount to be expended toward maintenance by the County is limited and does not include expenditures for winter maintenance. Any additional services or maintenance not provided by the County which shall be required by the Developer shall be provided by the Developer and no demand shall be made upon the County therefor. Such additional services or maintenance shall include but shall not be limited to road repairs, grading or snow removal.

4.7 Representatives - Each party hereto shall appoint a representative to represent and act for and on behalf of such party with respect to all matters hereunder. A party hereto at any time and from time to time may relieve such representative and replace him/her with another person upon proper notification to the other parties hereto.

4.8 Inspection - Each party hereto at all times shall have the right to have one (1) or more representatives present while Said Work is in progress for the purpose of inspecting Said Work and the materials used therein. UDOT shall provide adequate, safe and proper facilities for such inspection, but it is further understood and agreed that the Project Engineer assigned by UDOT shall have full authority to control the work pursuant to the contract and appropriate specifications.

4.9 Notice of Progress - Within twenty (20) days following the close of each calendar month, UDOT shall deliver to County and Developer a statement setting forth in complete detail the costs incurred by UDOT and its contractor in the performance of Said Work during said month, total cost incurred by same in the performance of Said Work through said month, percentage or completion by same of Said Work during said month, total percentage of completion by same of Said Work through said month, estimated cost to complete Said Work and a narrative report of progress and problem areas, if any.

4.10 Progress Payments of Sales and/or Use Taxes - Within thirty (30) days following receipt by Developer of the statement prepared by UDOT in accordance with Paragraph 4.9 above, for the month covered by such statement, Developer shall make a progress payment to the Tax Commission for the cost incurred by UDOT and/or its contractor in the performance of Said Work for such month as set forth in such statement.

4.11 Audit - UDOT agrees that it will maintain or cause the contractor to maintain accurate books, records, correspondence, vouchers, receipts, memoranda and similar data in connection with the performance of Said Work. Such books, records, correspondence, vouchers, receipts, memoranda and similar data shall be available for examination and copying by duly authorized representatives of County or Developer at reasonable times and places for the purpose of determining completeness and accuracy of the statements furnished by UDOT and/or the contractor to County and Developer hereunder.

4.12 Refund of Prepaid Tax - County, UDOT and Developer agree that prepaid sales and/or use taxes for the performance of Said Work as provided herein become the property of the State, and Developer waives any claim to any funds which are prepaid pursuant to this Agreement except the right to receive a credit against sales and/or use taxes as the same become due and otherwise payable; provided, however, notwithstanding anything contained herein to the contrary, should the amount of taxes prepaid in accordance with this Agreement and the Act for the performance of Said Work exceed the costs incurred by UDOT to complete the performance of Said Work or should Developer terminate this Agreement as hereinafter provided and the amount of taxes prepaid in accordance with this Agreement and the Act for the performance of Said Work exceed the cost incurred by UDOT to date of termination, then such excess prepayment of taxes shall be transferred and returned to Developer to the extent that such taxes are not otherwise due and payable for returns to be filed pursuant to Sections 59-15-5 and 59-16-7, Utah Code Annotated, 1953 as amended.

4.13 Insufficient Tax Accrual - If the actual expenditures made by UDOT for the performance of Said Work exceed the amount of sales and/or use taxes actually imposed on Developer

by Chapters 15 and 16, Title 59, Utah Code Annotated, 1953 as amended, then to the extent that such expenditures were made with Developer's prior agreement as provided in Paragraphs 4.3 and 4.14, no refund shall be allowed Developer pursuant to Paragraph 4.12 above for the excess amount prepaid.

4.14 Termination - This Agreement may be terminated by Developer with or without cause upon ten (10) days' prior written notice to UDOT; provided, however, in the event of termination by Developer, UDOT shall be paid for the costs incurred by it in the performance of Said Work to the date of termination as well as any costs or termination fees and charges incidental to a termination.

4.15 Addresses and Notices - All demands and notices to be given hereunder, if any, shall be sufficient if given in writing by registered or certified mail, postage prepaid, or if given by Western Union telegraph, and in either case addressed to the respective party at its postal address or to such other address or addresses as each may hereafter designate in writing. The present addresses of Developer are Five Greenway Plaza East, Houston, Texas 77046, Attention of Vice President of Transportation, Coal and Chemicals Division; and Southern Utah Fuel Company, P.O. Box P, Salina, Utah 84654, Attention Vice President and General Manager. The present postal address of UDOT is State Office Building, Salt Lake City, Utah 84114. Notices by mail shall be deemed effective and complete at the time of posting and mailing in accordance herewith. Notices by telegraph shall be deemed of delivery thereof to the telegraph company for transmission.

4.16 Applicable Law - This Agreement shall be interpreted in accordance with the laws of the State of Utah. Unless otherwise provided, all terms shall have the meaning given them in ordinary English usage and as customarily used. Words in the masculine gender include the feminine and neuter.

4.17 Entire Agreement - This Agreement contains the entire agreement between the parties. No promise, representation, warranty or covenant not included in this Agreement has been or is relied upon by either party. Each party has relied on its own examination of the full Agreement and the provisions thereof, and the warranties, representations and covenants expressly contained in the Agreement itself. The failure or refusal of either party to inspect the Agreement or other documents or to obtain legal advice or other advice relevant to this transaction constitutes a waiver of any objection, contingent or claim that might have been based upon such reading, inspection or advice. If any party has begun its performance hereunder under oral agreement prior to the execution of this Agreement, this Agreement shall apply thereto in the same manner as if made before such performance was commenced.

4.18 Amendment - No modification or amendment of this Agreement shall be of any force or effect unless in writing executed by all of the parties hereto.

4.19 Successors and Assigns - The stipulations aforesaid shall, to the extent permitted by the provisions hereof, apply to and be binding upon the successors and assigns of the respective parties hereto.

IN WITNESS WHEREOF, the said parties to this Agreement have executed the same as of the day and year first above written.

SEVIER COUNTY, UTAH ("County")


  
 K. L. McFie, County Attorney      Commissioner Elmo Herring

RECOMMENDED FOR APPROVAL

UTAH DEPARTMENT OF TRANSPORTATION  
("UDOT")

By \_\_\_\_\_  
C. V. Anderson,  
Assistant Director

By \_\_\_\_\_  
Blaine J. Kay, Director of  
Transportation

ATTEST:

UTAH STATE TAX COMMISSION  
("Tax Commission")

By \_\_\_\_\_

By \_\_\_\_\_

FUNDS AVAILABLE

\_\_\_\_\_  
Budget Officer

By \_\_\_\_\_

APPROVED

\_\_\_\_\_  
Director of Finance

By \_\_\_\_\_

COASTAL STATES ENERGY COMPANY  
Acting for Itself and Its  
Affiliated Companies ("Developer")

By LC Smith  
Senior Vice President *CSR*

APPROVED AS TO FORM:

By \_\_\_\_\_  
Assistant Attorney General  
of the State of Utah

UDOT INVOICES

# UTAH DEPARTMENT OF TRANSPORTATION

OFFICE OF THE COMPTROLLER  
613 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114

6-9-83

## STATEMENT

Sevier County

Richfield, Utah 84701

Ref. # SA-6066

MAKE CHECKS PAYABLE TO THE  
ABOVE, WITH REFERENCE TO:

INVOICE DATE

INVOICE NUMBER

82055

PURCHASES FROM: 4-16-83 TO: 5-31-83 DOT Div.# 03-031

P.O. # OR REF: 7210 DOT Account # 013-303

QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	EXTENSION
The following charges are for crack sealing with crumb rubber various areas on Convulsion Mine Road.				
43	Hrs.	Labor - 2 Men	16 4472	707.23
12	Hrs.	Labor - 1 Man	17 0478	204.57
42	Hrs.	Labor - 2 Men	17 7408	745.11
54	Hrs.	Labor - 3 Men	19 0344	1,027.85
25	Hrs.	Labor - 1 Man	21 1365	528.42
26	Hrs.	Labor - 1 Man	21 8526	568.17
21	Hrs.	Labor - 1 Man	22 8228	479.28
15	Hrs.	Labor - 1 Man	23 4234	351.35
9	Hrs.	Labor - 1 Man	25 1559	226.40
15	Hrs.	Labor - 1 Man	25 9875	389.81
<u>EQUIPMENT USED:</u>				
285	Mi.	Truck #23-01-94	0 5265	150.05
130	Mi.	Truck #23-01-240-	0 5265	68.44
296	Mi.	Truck #23-01-312	0 5265	155.85
10	Hrs.	Compressor #23-15-26	11 70	117.00
18	Hrs.	Compressor #23-15-30	11 70	210.60
18	Hrs.	Truck #23-01-42	17 55	315.90
16	Hrs.	Truck #23-01-558	17 55	280.80
20	Hrs.	Asphalt Distributor #23-10-35	26 91	538.20
20	Hrs.	Asphalt Distributor #23-10-91	26 91	538.20
<u>MATERIALS USED:</u>				
6,076	Lbs.	Block Rubber	0 2943	1,786.95
7,626	Lbs.	Block Rubber	0 2943	2,244.33
"Please return copy of invoice with payment."				

PLEASE PAY THIS AMOUNT

\$11,634.51

- 1. Terms: 30 days net
- 2. Include the duplicate copy of this invoice with your payment.
- 3. Refer to invoice number when writing.

# UTAH DEPARTMENT OF TRANSPORTATION

OFFICE OF THE COMPTROLLER  
613 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114

*Rec 3-7-79*  
1-26-79

## STATEMENT

Sevier County

Richfield, Utah 84701

MAKE CHECKS PAYABLE TO THE ABOVE, WITH REFERENCE TO:

INVOICE DATE	INVOICE NUMBER
	63017

PURCHASES FROM: 10-1-78 TO: 10-31-78 DOT Div.# 8434

P.O. # OR REF: DOT Account # 7210 0232

QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	EXTENSION
Paint center line on county road from Jct. of I-70 and exit 72 to Convulsion Coal Mine 11 miles per Cooperative Agreement dated 10-11-78				
8	Hr.	Labor	10 31	82 48
8	Hr.	Labor	8 93	71 44
8	Hr.	Labor	8 36	66 88
8	Hr.	Labor	8 36	66 88
8	Hr.	Labor	7 21	57 68
8	Hr.	Labor	4 35	34 80
<u>Equipment Used</u>				
99	Mi.	Truck #23-1-497	43	38 27
5	Hr.	Paint Machine #23-14-4	18 72	93 60
108	Mi.	Pickup #23-19-1	19	20 52
124	Mi.	Pickup #23-19-108	19	23 56
5	Hr.	Sweeper #23-21-25	18 14	90 55
5	Hr.	Traffic Directional Control #23-33-1	2 93	14 65
5	Hr.	Traffic Directional Control #23-33-5	2 93	14 65
3	Hr.	Truck #23-1-373	9 83	29 49
<u>Material Used</u>				
300	Ea.	Amber Reflectors	2925	87 75
150	Ea.	Sign Bolts	0882	13 23
400	Gals.	White Traffic Paint	3 98	1592 00
275	Gals.	Yellow Traffic Paint	3 90	1072 00
4000	Lbs.	Glass Beads	1661	664 40
"Please return copy of invoice with payment."				

*NOT USED ON ROAD*

TERMS: 30 days net.

PLEASE PAY THIS AMOUNT

4134 83

1. Include the duplicate copy of this invoice with your payment.

2. Refer to invoice number when writing.

27227 9,033 85

# UTAH DEPARTMENT OF TRANSPORTATION

OFFICE OF THE COMPTROLLER  
613 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114

12-8-80

## STATEMENT

Sevier County  
Sevier County Courthouse  
Richfield, Utah 84701

MAKE CHECKS PAYABLE TO THE  
ABOVE, WITH REFERENCE TO:

INVOICE DATE

INVOICE NUMBER

12/12/80

70911

PURCHASES FROM: 11-1-80 TO: 11-30-80 DOT Div.# 03-031

P.O. # OR REF: 7210 DOT Account # 013-303

QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	EXTENSION
		Painting center line on county road from Jct. of I-70 and exit 72 to Convulsion Coal Mine.		
6	Hrs.	Labor	18.6369	111.82
6	Hrs.	Labor	17.7390	106.43
6	Hrs.	Labor	14.5854	87.51
6	Hrs.	Labor	20.0385	120.23
6	Hrs.	Labor	23.2140	139.28
4	Hrs.	Labor	15.4760	61.90
		<u>Equipment Used:</u>		
111	Mi.	Truck #23-01-497	0.8307	92.21
2	Hrs.	Paint Machine #23-14-004	21.06	42.12
209	Mi.	Truck #23-19-288	0.2574	53.80
118	Mi.	Truck #23-19-109	0.2574	30.37
104	Mi.	Truck #23-19-108	0.2574	26.77
		<u>Materials Used:</u>		
270	Gals	Yellow Traffic Paint	5.3840	1453.68
1800	Gals	Glass Beads	0.2202	396.36
5	Gals	Paint Thinner	2.4079	12.04
"Please return copy of invoice with payment."				

TERMS: 30 days net

PLEASE PAY THIS AMOUNT

2734 52

Use the duplicate copy of this invoice with your payment.

Refer to invoice number when writing.

# UTAH DEPARTMENT OF TRANSPORTATION

OFFICE OF THE COMPTROLLER  
613 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114

11-30-81

## STATEMENT

Sevier County  
Sevier County Courthouse  
Richfield, Utah 84701

MAKE CHECKS PAYABLE TO THE  
ABOVE, WITH REFERENCE TO:

INVOICE DATE

INVOICE NUMBER

75176

PURCHASES FROM: 10-1-81 TO: 10-30-81 DOT Div.# 03-031

P.O. # OR REF: 7210 DOT Account # 013-303

QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	EXTENSION
		Paint Centerline on County road from Jct of I-70 and exit 72 to Convulsion coal mine per cooperative agreement dated 9-23-81		
7	Hrs.	Labor		
6	Hrs.	Labor	21.5900	151 13
7	Hrs.	Labor	15.8900	95 35
7	Hrs.	Labor	24.8979	174 29
7	Hrs.	Labor	19.5563	136 89
			20.2268	141 59
		<u>Equipment Used:</u>		
4	Hrs.	Traffic Directional Control		
4	Hrs.	Traffic Directional Control	2.3400	9 36
4	Hrs.	Traffic Directional Control	2.3400	9 36
102	Mi.	Pickup #23-19-79	2.3400	9 36
102	Mi.	Pickup #23-19-74	0.4680	47 74
4	Hrs.	Paint Machine #23-14-04	0.4680	47 74
5	Hrs.	Truck #23-01-497	43.8750	175 50
			18.1350	90 68
		<u>Materials Used:</u>		
1600	Lbs.	Glass Beads		
275	Gals.	Yellow Traffic Paint	0.2090	334 72
15	Gals.	Thinner	9.9625	1639 77
			2.5772	38 66

"Please return copy of invoice with payment."

PLEASE PAY THIS AMOUNT

\$3102 14

- TERMS. 30 days net
- Include the duplicate copy of this invoice with your payment
- Refer to invoice number when writing.

# UTAH DEPARTMENT OF TRANSPORTATION

OFFICE OF THE COMPTROLLER  
613 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114

10-28-82

## STATEMENT

Sevier County  
Sevier County Courthouse  
Richfield, Utah 84701

MAKE CHECKS PAYABLE TO THE ABOVE, WITH REFERENCE TO:	
INVOICE DATE NOV 08 1982	INVOICE NUMBER 79390

PURCHASES FROM: 9-1-82 TO: 9-30-82 DOT Div. # 03-031

P.O. # OR REF: 7210 DOT Account # 013-303

QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	EXTENSION
		<i>Painting center line on county road from Jct. of I-70 and exit 72 to Convulsion coal mine 11 miles per Cooperative Agreement dated 8-27-82.</i>		
6	Hrs.	Labor		
7	Hrs.	Labor	19 0344	114 21
6	Hrs.	Labor	27 8355	194 85
6	Hrs.	Labor	21 1365	126 82
6	Hrs.	Labor	21 8525	131 12
6	Hrs.	Labor	23 3310	139 99
		<u>Equipment Used:</u>		
4	Hrs.	Truck #23-01-373	18 1350	72 54
5	Hrs.	Truck #23-01-497	18 1350	90 68
2	Hrs.	Paint Machine #23-14-04	43 8750	87 75
102	Mi.	Pickup #23-19-79	0 4095	41 81
		<u>Materials Used:</u>		
230	Gals.	Yellow Traffic Paint	6 0975	1402 43
1400	Lbs.	Glass Beads	0 2225	311 92
"Please return copy of invoice with payment."				

S: 30 days net.

PLEASE PAY THIS AMOUNT

2714 12

Include the duplicate copy of this invoice with your payment.

Refer to invoice number when writing.

SUFCO INVOICES

Ken Payne  
Vice President & General Manager



**Southern Utah  
Fuel Company**

P.O. Box P  
Salina, Utah 84654  
(801) 529-7428  
(801) 637-4880 (Mine)

Subsidiary of  
Coastal States  
Energy Company

September 9, 1983

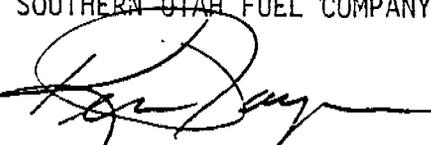
Mr. Elmo Herring  
Sevier County Commissioner  
in Charge of Roads  
Sevier County Courthouse  
250 North Main  
Richfield, Utah 84701

Dear Elmo:

Our invoice to Sevier County for reimbursement of road repair costs is enclosed. These costs were incurred as a result of subcontracting work to fix the two landslides on the "dugway" located on the county road approximately four miles north of Exit 72. The invoice is supported with documentation showing exact services from the subcontractors involved.

The work is essentially complete. Only reclamation of the access road and revegetation of the fill-faces remains to be performed. We estimate these additional costs will be approximately \$3,500. The reclamation work will take place within four weeks and a follow-up invoice will be sent to you at that time. Thank you for your support in allowing us to expedite these repairs. If you have any questions regarding the invoice, please call me at the mine.

Yours very truly,  
SOUTHERN UTAH FUEL COMPANY



Ken Payne  
Vice President and General Manager

KAF:d1j

Enclosure



**Southern Utah  
Fuel Company**

P.O. Box P  
Salina, Utah 84654  
(801) 529-7428  
(801) 637-4880 (Mine)

Subsidiary of  
Coastal States  
Energy Company

# INVOICE

NO	017	Page 1 of 2
DATE	09/09/83	
YOUR		
ORDER NO		
OUR		
ORDER NO		

<b>SOLD TO:</b> Sevier County
County Courthouse
Richfield, Utah 84701

<b>SHIP TO:</b> Repair work done on county
road - Convulsion Canyon -
from flood damage this spring

FOB	TERMS Net 30 days	DATE SHIPPED July-August	SHIPPED VIA
-----	----------------------	-----------------------------	-------------

ORDERED	SHIPPED	DESCRIPTION	PRICE	AMOUNT
		PER RODNEY RASMUSSEN COMPANY INVOICES		178,013.76
		1332/1333	\$116,836.75	
		1270	7,091.01	
		1342	17,306.00	
		1347	18,969.00	
		1345	17,811.00	
		PER NUCLEAR TESTING SERVICE INVOICES		554.22
		Dated 7/14/83	100.00	
		Dated 8/16/83	454.22	
			SUB TOTAL	See Page 2
			SALES TAX	
			TOTAL INVOICE	



**Southern Utah  
Fuel Company**

P.O. Box P  
Salina, Utah 84654  
(801) 529-7428  
(801) 637-4880 (Mine)

Subsidiary of  
Coastal States  
Energy Company

# INVOICE

NO	017	Page 2 of 2
DATE	09/09/83	
YOUR		
ORDER NO		
OUR		
ORDER NO		

<b>SOLD TO:</b> Sevier County
County Courthouse
Richfield, Utah 84701

<b>SHIP TO:</b> Repair work done on county
road - Convulsion Canyon -
from flood damage this spring

<b>FOB</b>	<b>TERMS</b> Net 30	<b>DATE SHIPPED</b> July-August	<b>SHIPPED VIA</b>
------------	------------------------	------------------------------------	--------------------

ORDERED	SHIPPED	DESCRIPTION	PRICE	AMOUNT
		PER ARCH-ENVIR RESEARCH CORP INVOICE		408.71
		Dated 7/15/83	408.71	
			<b>SUB-TOTAL</b>	178,976.69
		ENGINEERING & PROJECT INSPECTION COSTS		4,440.00
		148 hours x \$30.00/hour		
		SURVEYORS COSTS		2,250.00
		90 hours x \$25.00/hour		
			<b>SUB-TOTAL</b>	6,690.00
		FOR SERVICES RENDERED TO REPAIR COUNTY ROAD	<b>SUB TOTAL</b>	\$185,666.69
		LAND SLIDES FROM I-70, EXIT 72, per attached	<b>SALES TAX</b>	exempt
		invoice/service charges.	<b>TOTAL INVOICE</b>	\$185,666.69



# ARCHEOLOGICAL - ENVIRONMENTAL RESEARCH CORPORATION

588 West 800 South Bountiful, Utah 84010  
Tel: (801) 292-7061 or 292-9668

July 15, 1983

SENT BY  
MAIL ROOM OFFICE  
JUL 26 1983

Mr. Wess Sorensen  
Southern Utah Fuel Company  
P.O. Box P  
Salina, Utah 84654

For archeological services performed on the access road and leach field evaluations in the Salina Creek and Convulsion Canyon localities of Sevier County, Utah (SUFC-83-1) which includes field work on July 9, 1983, and report preparation on July 12, 1983:

Field Research	
8 hours @ \$175 per 8 hour period	\$175.00
Report Preparation	75.00
Per Diem Charges	
.5 day @ \$30 per day	15.00
Travel Charges	
360 miles for 4 wheel drive @ 32¢/mile	115.20
	sub total
	<u>\$310.20</u>
Research Fees	
7.5% of general costs	23.51
	<u>TOTAL COSTS</u>
	<u>\$403.71</u>

F. R. Hauck  
F. R. Hauck, Ph.D.  
President

OK  
F. A. Sorensen  
7-26-83

OK to pay  
Wess Sorensen  
7/26/83

No. \_\_\_\_\_

# NUCLEAR TESTING SERVICES

*Anytime* *Anywhere*

Sheet \_\_\_\_\_ of \_\_\_\_\_

TESTING · LEASING · REPAIR  
P. O. Box 26723  
Salt Lake City, Utah 84125

1515 Major Street • Salt Lake City, Utah 84115 • (801) 467-3892

## INVOICE

Order No. \_\_\_\_\_

To: SOUTHERN UTAH FUEL CO.  
P.O. Box P  
Salina, Utah 84654

July 14, 1983

Gauge & No.: Troxler Model 2401; S/N ~~3799~~ <sup>3692</sup>

QUANTITY	DESCRIPTION	UNIT	PRICE
1	<p><u>SECURITY DEPOSIT</u> : payment due for rental of Troxler model 2401; S/N <del>3799</del> <sup>3692</sup>.</p> <p>gauge deposit to be refunded or deducted from final rental invoice, contingent upon return of gauge in acceptable condition.</p> <p><i>Partial #1</i></p> <p><i>to the guy Mike Davis K.A. Evans 7-15-83</i></p>		100.00
		Sub Total	100.00
		Tax	N/A
		<b>TOTAL</b>	<b>\$100.00</b>

Thank You

*Accounts are due and payable upon receipt of invoice.*

# NUCLEAR TESTING SERVICES

Anytime

Anywhere

TESTING · LEASING · REPAIR  
P. O. Box 26723  
Salt Lake City, Utah 84125

1515 Major Street • Salt Lake City, Utah 84115 • (801) 467-3892

## INVOICE

Order No.

Aug. 16, 1983

To: SOUTHERN UTAH FUEL CO.  
P.O. Box P  
Salina, Utah 84654

Gauge & No.: Troxler Model 2401; S/N 3692; Ra-Be.

QUANTITY	DESCRIPTION	UNIT	PRICE
29	<p><u>LEASE:</u> payment due for final rental period moisture-density gauge as follows:</p> <p>Rental Period: July 14th, 1983, through Aug. 11th, 1983. Days rental @ applicable monthly rate; pro-rata: Security Deposit, Refund:</p> <p style="text-align: right;">Balance Due:</p>	- 18.33	<p>531.57</p> <p>(100.00)</p> <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> <p>431.57</p>
	<p>OK against 506 672 05205 K.G. James 8-23-83</p>		<p>Sub Total 431.57</p> <p>Tax 22.65</p> <hr style="width: 50%; margin-left: auto; margin-right: 0;"/> <p>TOTAL \$ 454.22</p>

Thank You

*\*Accounts are due and payable upon receipt of invoice.*



RODNEY RASMUSSEN COMPANY  
 155 East 200 South  
 SALINA, UTAH 84654

# INVOICE

1332

(801) 529-7261

TO Southern Utah Fuel Co.  
SALINA, Utah

DATE	8-1-83
CUSTOMER ORDER NO.	SAG089
SALESPERSON	
VIA	ATT. M. Ke DAVIS

TERMS: REPAIRS TO Mine Road

QUANTITY & No.	DESCRIPTION	PRICE	AMOUNT
550	7-11-83		960 00 -
551	7-12-83		2640 00 -
553	7-13-83		3737 00 -
554	7-14-83		3884 50 -
555	7-15-83		3962.75 -
556	7-16-83		7592 50 -
557	7-17-83		8280 00 -
558	7-18-83		6300 00 -
559	7-19-83		6000 00 -
560	7-20-83		6230 00 * 7200
561	7-21-83		5952 00 -
562	7-22-83		1040 00 -
563	7-23-83		9255 00 -

ORIGINAL

( Thank You! ( #1

RODNEY RASMUSSEN COMPANY  
 155 East 200 South  
 SALINA, UTAH 84654

# INVOICE

1333

(801) 529-7261

TO Southern Utah Fuel Co.  
SALINA, Utah

DATE	8-1-83
CUSTOMER ORDER NO.	SA 6089
SALESPERSON	
VIA	ATT. MIKE DAVIS

TERMS: Repairs To Mine Road

QUANTITY INVOICE NO.	DESCRIPTION	PRICE	AMOUNT
564	7-24-83		
565	7-26-83		8600.00
566	7-27-83		19,534.50
569	7-28-83		2090.00
570	7-29-83		2800.00
572	7-30-83		2600.00
573	7-31-83		9951.00
			5,627.50

OK to pay Bill # 116,836.75  
 SA 6089 8-22-83  
 K.A. name

TOTAL DUE

~~117,036.75~~

ORIGINAL

Thank You!

# 116,836.75 242

















# Daily Rental Sheets

Rodney Rasmussen Co. — Salina, Utah 84654

WEATHER \_\_\_\_\_

Date 8-6-83 Sat

*Sufo*  
*Mine Road*  
*Slide # 2*

*Andy J. Wain*

NO 0587

## MATERIALS

INVOICE	Rasmussen Co.		DESCRIPTION	QUAN.	UNIT	PRICE	AMOUNT
	MAT. REQ.	P.O.					

Materials Sub. \$ \_\_\_\_\_  
 — Rasmussen Co. Cost \$ \_\_\_\_\_  
 Contractor Cost \$ \_\_\_\_\_

## EQUIPMENT & LABOR

TYPE	TITLE	DESCRIPTION	Loads	START	STOP	TOTAL HOURS	HR. RATE	AMOUNT
cat	D7H	Road Ex.		10:00	9 pm	10.5	15.00	1575.00
cat	D7F			10:00	9 pm	10.5	8.00	840.00
Loader	966			7:00	7:30	14	8.00	1120.00
Comp.	815			10:00	9:20	10.5	9.00	945.00
Shov	215			7:00	12:00	5	75.00	375.00
Trucks	4 Billy Dumps	Hauling Borrow from Bud Cat	168	10:00	9 pm	42	60.00	2520.00
Formm	pick up			7:00	7:30	14	30.00	420.00
Labor	3 labor	Installing Drains & Flagging		7:00	10:20	9	11.00	99.00
	2 labor			10:00	5:30	16	11.00	176.00
OT	5 men					54.5	15.50	844.75
Under	#14			5:30	9:30	14	25.00	350.00
Oil	3 LABORS					25	5.50	137.50
Total			168	Yds.	3192			1025.00

PROJECT INSPECTOR  
*Rodney Rasmussen*  
 CONTRACTOR REP.  
*Mike Davis*  
 PROJECT ENGINEER

SUB. EQ. & LABOR \$ 902.50  
 MATERIALS SUB. \$ \_\_\_\_\_  
 TOTAL \$ \_\_\_\_\_  
 SUB. EQ. & LABOR \$ \_\_\_\_\_  
 CONTRACTOR MAT. COST X1.15 \$ \_\_\_\_\_  
 TOTAL DUE CONTR \$ \_\_\_\_\_



# Daily Rental Sheets

Rodney Rasmussen Co. — Salina, Utah 84654

WEATHER \_\_\_\_\_

*Super.  
Main Road  
Slide #2*

*Cloudy*

Date *8-4-83-Thurs*

112 0535

## MATERIALS

INVOICE	Rasmussen Co.		DESCRIPTION	QUAN.	UNIT	PRICE	AMOUNT
	MAT. REQ.	F.O.					

Materials Sub. \$ \_\_\_\_\_  
 — Rasmussen Co. Cost \$ \_\_\_\_\_  
 Contractor Cost \$ \_\_\_\_\_

## EQUIPMENT & LABOR

EQ	TITLE	DESCRIPTION	Loads	START	STOP	TOTAL HOURS	HR. RATE	AMOUNT
<i>Cat</i>	<i>D9L</i>	<i>Road Ex.</i>		<i>7:00</i>	<i>5:00</i>	<i>9 1/2</i>	<i>150.00</i>	<i>1425.</i>
<i>Comp.</i>	<i>815</i>	"		<i>7:00</i>	<i>5:00</i>	<i>9 1/2</i>	<i>90.10</i>	<i>855.00</i>
<i>Loader</i>	<i>966</i>	"		<i>8:00</i>	<i>5:00</i>	<i>8 1/2</i>	<i>80.00</i>	<i>680.00</i>
<i>Backhoe</i>	<i>215</i>	"		<i>12:30</i>	<i>2:30</i>	<i>2</i>	<i>75.00</i>	<i>150.00</i>
<i>Truck</i>	<i>4</i>	<i>Hauling Bones from Build cut</i>	<i>96</i>	<i>8:00</i>	<i>4:30</i>	<i>32 1/2</i>	<i>60.00</i>	<i>1920.00</i>
<i>Form</i>	<i>pickup</i>			<i>7:00</i>	<i>12:30</i>	<i>5</i>	<i>30.00</i>	<i>150.00</i>
<i>Tractor</i>		<i>Moving Cut</i>		<i>3:30</i>	<i>5:30</i>	<i>2</i>	<i>30.00</i>	<i>60.00</i>
<i>Tractor</i>				<i>6:00</i>	<i>8:00</i>	<i>2</i>	<i>75.00</i>	<i>150.00</i>
<i>O.T.</i>	<i>3 Men</i>					<i>3</i>	<i>15.00</i>	<i>45.00</i>
<i>Labor</i>	<i>20</i>	<i>Flippers</i>		<i>8:00</i>	<i>4:30</i>	<i>16</i>	<i>11.00</i>	<i>176.00</i>
Total			<i>96</i>	Yds. <i>1728</i>		<i>1728</i>		<i>150.00</i>

PROJECT INSPECTOR \_\_\_\_\_  
*Rodney Rasmussen*  
 CONTRACTOR REP.  
*Mike Davis*  
 PROJECT ENGINEER

SUB. EQ. & LABOR ~~5611.00~~  
 MATERIALS SUB. \$ \_\_\_\_\_  
 TOTAL \$ \_\_\_\_\_  
 SUB. EQ. & LABOR \$ \_\_\_\_\_  
 CONTRACTOR MAT. COST X1.15 \$ \_\_\_\_\_  
 TOTAL DUE CONTR. ~~5611.00~~























# Daily Rental Sheets

Rodney Rasmussen Co. — Salina, Utah 84654

WEATHER \_\_\_\_\_

Date 7-23-83-Sat

Sufco  
Mark Road

Cold & Warm

NO 1563

Stake Repair #1

## MATERIALS

INVOICE	Rasmussen Co.		DESCRIPTION	QUAN.	UNIT	PRICE	AMOUNT
	MAT. REQ.	P.O.					

- 1 Materials Sub. \$ \_\_\_\_\_
- Rasmussen Co. Cost \$ \_\_\_\_\_
- 3 Contractor Cost \$ \_\_\_\_\_

## EQUIPMENT & LABOR

TITLE	DESCRIPTION	Loads	START	STOP	TOTAL HOURS	HR. RATE	AMOUNT
<u>cat</u> <u>D9H</u>	<u>Road Ex</u>		<u>7:00</u>	<u>11:00</u>	<u>4</u>	<u>150.00</u>	<u>600.00</u>
<u>cat</u> <u>D8K</u>	<u>" "</u>		<u>8:00</u>	<u>5:30</u>	<u>9</u>	<u>100.00</u>	<u>900.00</u>
<u>Scrap</u> <u>631</u>	<u>" "</u>	<u>20</u>	<u>8:00</u>	<u>11:00</u>	<u>3</u>	<u>150.00</u>	<u>450.00</u>
<u>Comp</u> <u>815</u>	<u>" "</u>		<u>7:00</u>	<u>5:30</u>	<u>10</u>	<u>90.00</u>	<u>900.00</u>
<u>loader</u> <u>966</u>	<u>hauling borrow</u>		<u>8:00</u>	<u>5:30</u>	<u>9</u>	<u>80.00</u>	<u>720.00</u>
<u>backhoe</u> <u>215</u>	<u>Road Ex</u>		<u>10:00</u>	<u>12:00</u>	<u>2</u>	<u>75.00</u>	<u>150.00</u>
<u>loader</u> <u>40-14</u>	<u>" "</u>		<u>7:00</u>	<u>9:00</u>	<u>2</u>	<u>75.00</u>	<u>150.00</u>
<u>Trucks</u> <u>3 Truck</u>	<u>Hauling Borrow</u>	<u>118</u>	<u>8:00</u>	<u>5:30</u>	<u>66</u>	<u>60.00</u>	<u>3960.00</u>
<u>Trucks</u> <u>Billy Diner</u>	<u>from Johnson pit</u>						
<u>Trucks</u> <u>pickup</u>	<u>" "</u>		<u>7:00</u>	<u>5:30</u>	<u>10</u>	<u>30.00</u>	<u>300.00</u>
<u>Wetline</u> <u>11 men</u>	<u>(Overtime not charged on leased trucks (4))</u>				<u>75</u>	<u>15.00</u>	<u>1125.00</u>
<p><u>(Trucks Hauled)</u> <u>(Borrow Hauled) From Johnson pit = 118 x 164 yds = 19352</u> <u>(1888 yds) 631 = 200 30 = 600</u> Total Yds. <u>2488</u></p>							

- 2 SUB. EQ. & LABOR \$ 2255.00
- 1 MATERIALS SUB. \$ \_\_\_\_\_
- TOTAL \$ \_\_\_\_\_
- 2 SUB. EQ. & LABOR \$ \_\_\_\_\_
- 3 CONTRACTOR MAT. COST X1.15 \$ \_\_\_\_\_
- TOTAL DUE CONTR. \$ 2,255.00

PROJECT INSPECTOR  
Rodney Rasmussen  
CONTRACTOR REP.  
Mike Davis  
PROJECT ENGINEER



# Daily Rental Sheets

Rodney Rasmussen Co. — Salina, Utah 84654

WEATHER \_\_\_\_\_

Date 7-21-83 *Thu*

*Sufco  
Main Road  
Mud Slide Repair*

*Cloudy & Warm  
Rained in P.M. - Mud Slide Road  
Stuck*

No. 0561

## MATERIALS

INVOICE	Rasmussen Co.		DESCRIPTION	QUAN.	UNIT	PRICE	AMOUNT
	MAT. REQ.	P.O.					

1 Materials Sub. \$ \_\_\_\_\_  
 — Rasmussen Co. Cost \$ \_\_\_\_\_  
 3 Contractor Cost \$ \_\_\_\_\_

## EQUIPMENT & LABOR

TYPE	TITLE	DESCRIPTION	Loads	START	STOP	TOTAL HOURS	HR. RATE	AMOUNT
JAT	D9H	Road Ex.		3:00	5:30	2.5	150.00	375.00
JAT	D8K	" "		7:00	5:30	1.0	100.00	100.00
Comp.	815	" "		7:00	5:30	1.0	90.00	90.00
Comp.	631	" "	20	11:00	5:30	6.0	150.00	750.00
Tractor	966	" "		7:00	5:30	1.0	80.00	80.00
Tractor	No 14	" "		4:30	5:30	1.0	75.00	75.00
Backhoe	215	Installing Drain IN Fill		7:00	5:30	1.0	75.00	75.00
Forma	Pit	" "		9:30	5:30	8.0	30.00	240.00
Labour	4 men	Installing Drain Line		7:00	4:00	3.1	11.00	34.00
Truck	4 Betty Dump	Hauling Borrow From Johnsons	24	2:00	5:30	1.0	60.00	60.00
Tractor	4 man	Moving D8K		1:30	3:30	2.0	25.00	
Tractor	4 man					8.0	15.00	120.00
(Yds. From Johnson pit 384 yds)			631	20 x 30 = 600 yds -				
			Total	24	Yds.	98.1		

24 x 16 yds = 384  
 2 SUB. EQ. & LABOR 5952.00  
 1 MATERIALS SUB. \$ \_\_\_\_\_  
 TOTAL \$ \_\_\_\_\_  
 2 SUB. EQ. & LABOR \$ \_\_\_\_\_  
 3 CONTRACTOR MAT. COST X1.15 \$ \_\_\_\_\_  
 TOTAL DUE CONTR 5952.00

PROJECT INSPECTOR  
*Rodney Rasmussen*  
 CONTRACTOR REP.  
*Mike Ross*  
 PROJECT ENGINEER





# Daily Rental Sheets

Rodney Rasmussen Co. — Salina, Utah 84654

WEATHER \_\_\_\_\_

Date 7-18-83 - Mon.

S'UFCO,  
MINE ROAD

WALTER S. CLARK

NO 0558

Mud Slide Repair #1

## MATERIALS

INVOICE	Rasmussen Co.		DESCRIPTION	QUAN.	UNIT	PRICE	AMOUNT
	MAT. REQ.	P.O.					

1 Materials Sub. \$ \_\_\_\_\_  
 — Rasmussen Co. Cost \$ \_\_\_\_\_  
 3 Contractor Cost \$ \_\_\_\_\_

## EQUIPMENT & LABOR

TITLE	DESCRIPTION	Loads	START	STOP	TOTAL HOURS	HR. RATE	AMOUNT
AT	ROAD EX		7:00	5:30	10	150 <sup>00</sup>	1500 <sup>00</sup>
AT	DRK "		7:00	5:30	10	100 <sup>00</sup>	1000 <sup>00</sup>
MP	815 "		7:00	5:30	10	90 <sup>00</sup>	900 <sup>00</sup>
TRUCK	215 "		7:00	12:00	2	75 <sup>00</sup>	150 <sup>00</sup>
GRADER	266 "		7:00	5:30	10	80 <sup>00</sup>	800 <sup>00</sup>
CRAPER	631 Hauling Behind	63	7:00	5:30	10	150 <sup>00</sup>	1500 <sup>00</sup>
TRUCK	pickup		7:00	5:30	10	30 <sup>00</sup>	300 <sup>00</sup>
machine	2 hrs x 5 men				10	15 <sup>00</sup>	150 <sup>00</sup>
Total		63	Yds.	1390'			6300 <sup>00</sup>

Rodney Rasmussen  
PROJECT INSPECTOR  
Rodney Rasmussen  
CONTRACTOR REP.  
Mike Davis  
PROJECT ENGINEER

(X 50 YDS PER LOAD)  
 2 SUB. EQ. & LABOR \$ \_\_\_\_\_  
 1 MATERIALS SUB. \$ \_\_\_\_\_  
 TOTAL \$ \_\_\_\_\_  
 2 SUB. EQ. & LABOR \$ \_\_\_\_\_  
 3 CONTRACTOR MAT. COST X1.15 \$ \_\_\_\_\_  
 TOTAL DUE CONTR. \$ \_\_\_\_\_











# Daily Rental Sheets

Rodney Rasmussen Co. — Salina, Utah 84654

WEATHER \_\_\_\_\_

Date 7-13-83 Wed

**SUF Co**  
MINE Road  
Mud Slide Repair #1

Clear & Warm

№ 0553

## MATERIALS

INVOICE	Rasmussen Co.		DESCRIPTION	QUAN.	UNIT	PRICE	AMOUNT
	MAT. REQ.	P.O.					

1 Materials Sub. \$ \_\_\_\_\_  
 - Rasmussen Co. Cost \$ \_\_\_\_\_  
 3 Contractor Cost \$ \_\_\_\_\_

## EQUIPMENT & LABOR

	TITLE	DESCRIPTION	Loads	START	STOP	TOTAL HOURS	HR. RATE	AMOUNT
CAT	D9H	ROAD EX.		7:00	5:30	10	150.00	1500.00
COMP.	815	" "		7:00	5:30	10	90.00	900.00
BACKhoe	215	ROAD EX. AND INSTALLING DRAIN PIPE		10:00	5:30	7	75.00	525.00
GRADER	682	" " " "		10:00	5:30	7	45.00	315.00
TRUCK	PICKUP	" " " "		7:00	5:30	10	30.00	300.00
LABOR	1 MAN	" " " "		10:00	5:30	7	11.00	77.00
OPER	OPERATOR							
TIME	1 man	FOR 7-13-83				4	15.00	60.00
OPER	OPERATOR	7-13-83				4	15.00	60.00
LABOR	2 men							
Total								

2 SUB. EQ. & LABOR \$ 3737.00  
 1 MATERIALS SUB. \$ \_\_\_\_\_  
 TOTAL \$ \_\_\_\_\_  
 2 SUB. EQ. & LABOR \$ \_\_\_\_\_  
 3 CONTRACTOR MAT. COST X1.15 \$ \_\_\_\_\_  
 TOTAL DUE CONTR. \$ 3737.00

PROJECT INSPECTOR  
Rodney Rasmussen  
 CONTRACTOR REP.  
Mike Orris  
 PROJECT ENGINEER





PHOTOGRAPHIC PLATES

The following three plates clearly illustrate that the county road leading to the Southern Utah Fuel Company mine has regular year-round public use, by cabin owners whose only access is the county road and extensive snowmobile and cross country skiing, coupled with frequent recreationers who travel the road to observe and photograph big game animals during the winter months.

The county road, during the summer and fall months, gets a tremendous amount of public traffic to fishing and big game areas.

PLATE I

PLATE I

Picture #1

Illustrates county road leading to the Southern Utah Fuel Mine (red arrow). View is looking East across Accord Lake and background mountain area where extensive snowmobiling and cross county skiing occurs during the winter months.

Picture #2

Is a view from the county road looking West across Accord Lake at one of many private cabins (red arrow), and extensive snowmobile tracks.

Picture #3

Depicts snowmobile tracks with private cabins (red arrows) in the background looking West.

Picture #4

Illustrates another picture of a private cabin (red arrow) and shows extensive snowmobile activity.



Picture #1-23



Picture #3-8



Picture #2-1



Picture #4-2

PLATE II

PLATE II

Pictures #1 and #2

Both illustrate quality and extent of winter snow removal on county road leading to SUFCo mine.

Picture #1

Depicts the Accord Lake road (sign on left) leading to many private homes.

Picture #2

Is a view looking North from the county road showing mobile homes at red arrows.

Picture #3

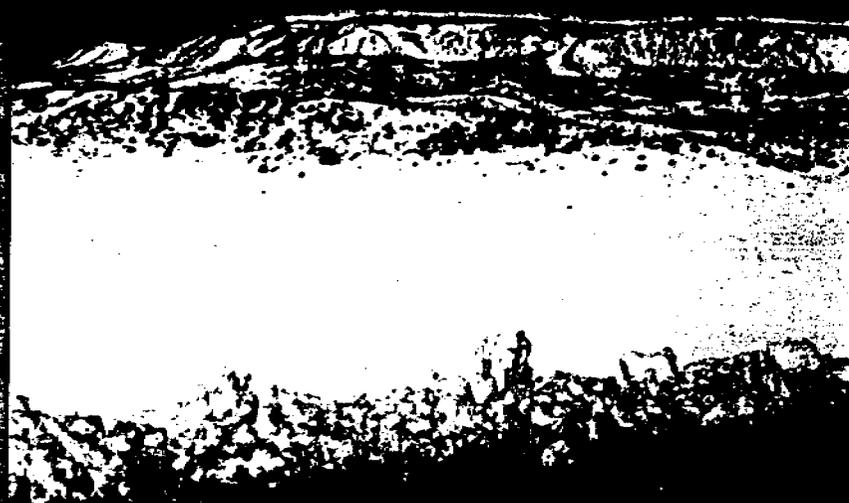
Looks South from the county road and depicts snowmobile tracks in the foreground, and a private home on the ridge top (red arrow).

Picture #4

Illustrates a new county development area recently subdivided into private cabin sites.



Picture #1-21



Picture #3-20



Picture #2-18



Picture #4-19

PLATE III

PLATE III

Pictures #1 and #2

Show one of many private ranch access gates looking Southwest from the county road.

Picture #3

Is looking Southwest at additional snowmobile trails.

Picture #4

Illustrates a herd of elk (red arrow) east of the county road. This area is a popular winter game viewing area, since the elk and deer spend considerable time in this location.

1984 SUBSIDENCE REPORT  
SUTHERN UTAH FUEL COMPANY (SUFCO)

RECEIVED

OCT 15 1984

DIVISION OF OIL  
GAS & MINING

Introduction

This report is presented as an addendum to SUFCO's Mining and Reclamation Plan and previously submitted subsidence reports. The included map, figure, and tables have been updated with data obtained during 1984. One area (1L4E) developed new subsidence in excess of one foot. Two areas (One West and Two East) developed expanded and additional subsidence, also in excess of one foot.

New Subsidence Area

As shown on the included Map 80-9B (revised), new subsidence was measured above the 1L4E pillaring panel. Maximum subsidence, as of the 1984 survey, is 2.71 feet. Judging from the current positions of the 1L4E subsidence points on Figure 1, an additional subsidence of four to six feet is expected in this area.

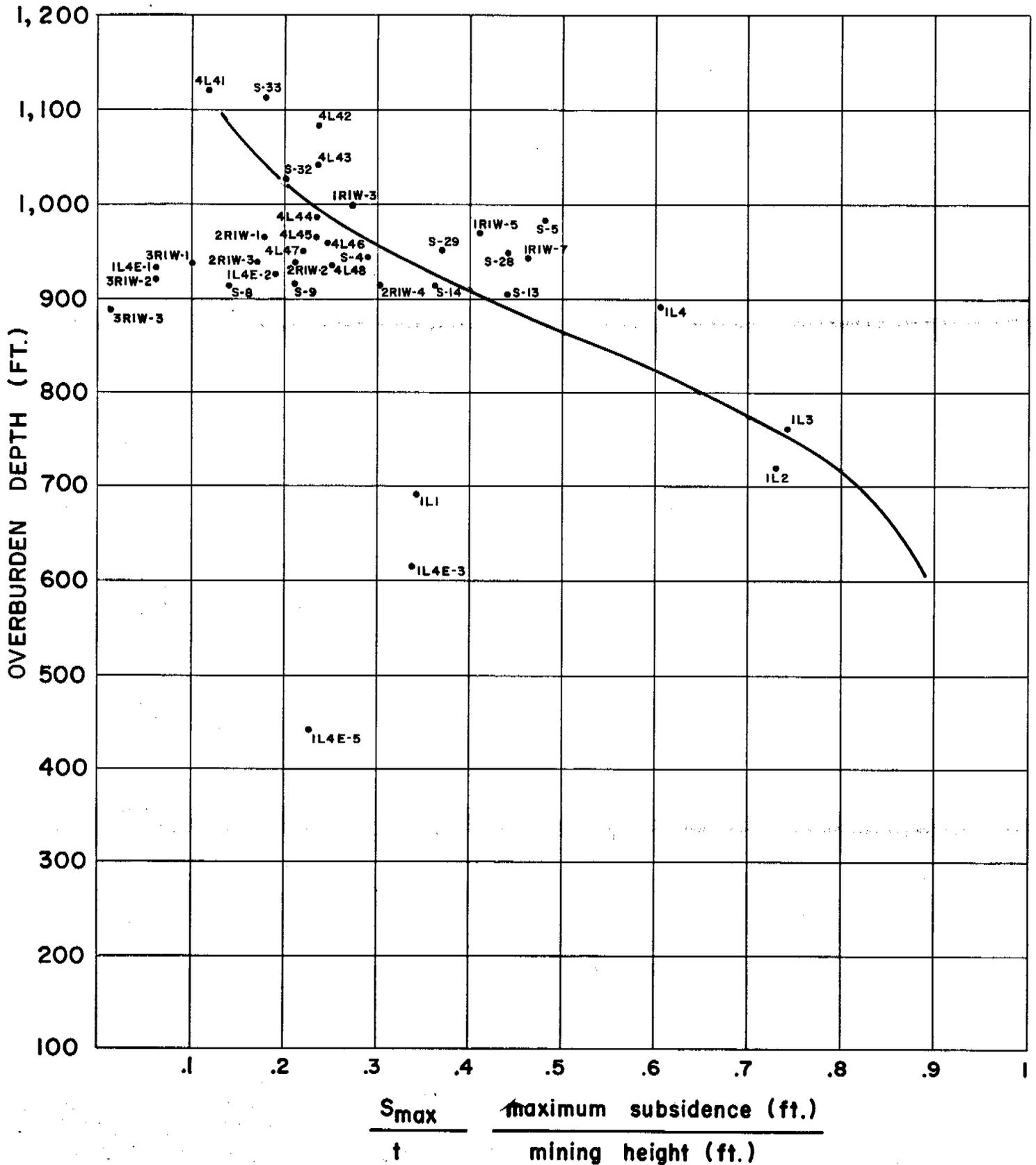
Old Subsidence Areas

Additional subsidence was measured in the One West and Two East areas. One West showed both expansion and increased subsidence depth whereas Two East was limited to increased subsidence with little change of the subsidence boundaries.

The One West area can be divided into three separate subsidence areas. The first being south of the One West mains over the one through five left panels which have not significantly subsided since 1983. The second being the One West mains which subsided slightly over one foot at points S-11 and S-21 and over two feet at point S-9. The third area north of the One West mains over panels one through three right realized the most significant subsidence change. Affected area increased from roughly one fourth of the 1R1W panel to all of 1R1W and 2R1W panels along with a small portion of the north end of 3R1W.

Limit Angle Surveys

No new data was obtained during 1984 to verify the 12 degree limit angle. However, Table 1 was reproduced from the 1983 subsidence report and is included for purposes of completeness. Short spaced subsidence stations were installed at the north end of 2L4E for purposes of limit angle verification. However, 2L4E had not been sufficiently mined for subsidence to be measured at these points prior to the 1984 survey.



NOTE: Only those subsidence stations positioned over good recovery areas in full extraction panels are used for this plot.

FIG. 1  
SUBSIDENCE / MINING HEIGHT vs. OVERBURDEN DEPTH  
(After fig.4 in Mining and Reclamation Plan, Subsidence Section)

TABLE 1  
SUBSIDENCE LIMIT ANGLE SUMMARY

<u>Subsidence* Station</u>	<u>Total Subsidence</u>	<u>Overburden Depth (OD)</u>	<u>Hor. Dist To** Mined Area (HD)</u>	<u>HD OD</u>	<u>Limit Angle</u>	<u>Comments</u>
S-3	.86 (ft)	976 (ft)	90 (ft)	.092	5 <sup>0</sup>	
S-15	.19	908	70	.077	4	
S-19	0	891	380	.426	23	
S-22	.78	1020	90	.088	5	
S-25	-	1250	90	.072	4	
S-30	-	1219	470	.386	21	
1R1W-1	.05	1058	90	.085	5	
2R1W-5	-	911	100	.110	6	
1L4E-4	-	257	100	.389	21	
1L4E-6	-	285	70	.246	14	

\*Only those stations positioned over barrier pillars or undeveloped areas.

\*\*Mined areas are full extraction areas only.

### Subsidence/Overburden Depth

Data obtained during 1984 do not justify a shift of the curve presented on Figure 1 at the present time. However, there does appear to be a right shifting trend of most subsidence stations in excess of what was anticipated. Continued monitoring, until the stations have stabilized, will be required to determine if a shift in the curve is justified. Data used to plot the Figure 1 curve is included on Table 2, along with the pertinent data on all subsidence stations.

### Environmental Effects of Subsidence

Visual observations of the subsidence areas detected no significant effect to the areas environment. In addition, no unnatural changes of the two springs in the area were noted.

### Tension Cracks

Tension cracks were noted during the 1984 survey. They were observed over the 2 North, 1R1W, 1L4E, 2L4E, and the north end of 4L2E. All cracks are very minor. Maximum crack width was one inch with no detectable vertical displacement.

### Conclusions

New subsidence during 1984 was limited to the 1L4E pillaring panel. However, significant subsidence expansion and deepening was measured in the One West area and minor subsidence deepening with no expansion in the Two East area. No significant environmental affects were noted in any of these areas.

The 1985 survey should help verify or adjust the subsidence/overburden graph and the 12 degree limit angle assumption. Neither changed as a result of the 1984 surveys due to expected further subsidence of many stations and the lack of subsidence over 2L4E, respectively.

TABLE 2

SUBSIDENCE DATA SUMMARY 1984

	<u>Subsidence Station</u>	<u>Surface Elevation</u>	<u>Mine Elevation</u>	<u>Overburden Depth</u>	<u>Total Subsidence (Smax)</u>	<u>Mining Height (t)</u>	<u>Smax t</u>	<u>Recovery</u>
1.	S-1	8545.31	7526	1019 (ft)	0 (ft)	11 (ft)		Over North Main Pillar
2.	S-2	8452.20	7505	947	.13	11	.01	Over North Main Pillar
3.	S-3	8487.93	7512	976	1.01	11	.09	Over Barrier Pillar
4.	S-4	8466.82	7520	947	3.16	11	.29	Good
5.	S-5	8524.14	7540	984	5.12	11	.47	Good
6.	S-6	8503.78	7560	944	.44	11	.04	Over 2 East Main Pillar
7.	S-7	8329.80	7390	940	1.33	11	.12	Over First Mined Area
8.	S-8	8354.92	7435	920	1.53	11	.14	Good
9.	S-9	8358.17	7436	922	2.27	11	.21	Good
10.	S-10	8362.30	7443	919	.97	11	.09	Over 1 West Main Pillar
11.	S-11	8372.66	7450	923	1.08	11	.02	Over 1 West Main Pillar
12.	S-12	8361.43	7477	884	2.42 (?)	11	.22	Moderate, Few Large Stumps
13.	S-13	8355.18	7450	905	4.86	11	.44	Good
14.	S-14	8337.65	7430	908	3.86	11	.35	Good

	<u>Subsidence Station</u>	<u>Surface Elevation</u>	<u>Mine Elevation</u>	<u>Overburden Depth</u>	<u>Total Subsidence (Smax)</u>	<u>Mining Height (t)</u>	<u>Smax t</u>	<u>Recovery</u>
15.	S-15	8323.19	7415	908	.84	11	.08	Over Barrier Pillars
16.	S-16	8305.10	7429	876	1.27	11	.12	Over First Mined Pillars
17.	S-17	8331.73	7442	890	.37	11	.03	Over First Mined Area
18.	S-18	Vandalized						Over Barrier Pillars
19.	S-19	8381.25	7490	891 (ft)	.39 (ft)	11 (ft)	.04	Over Barrier Pillars
20.	S-20	8440.11	7408	1032	1.18	11	.11	Over 1 West Main Pillars
21.	S-21	8504.55	7381	1124	.47	11	.04	Good, but Near Barrier Pillar
22.	S-22	8429.25	7409	1020	.91	11	.08	Over Barrier Pillar
23.	S-23	8417.17	7366	1051	1.61	11	.15	Good, but Near Chain Pillars
24.	S-24	8406.44	7377	1029	2.64	11	.24	Over Chain Pillars
25.	S-25	8614.21						Over Barrier Pillars

	<u>Subsidence Station</u>	<u>Surface Elevation</u>	<u>Mine Elevation</u>	<u>Overburden Depth</u>	<u>Total Subsidence (S<sub>max</sub>)</u>	<u>Mining Height (t)</u>	<u>S<sub>max</sub> t</u>	<u>Recovery</u>
26.	S-26	8557.43	7386	1171	.05	11	.004	Over Large Panel Pillars
27.	S-27	8567.50	7570	998				Over 2 East Main Pillars
28.	S-28	8497.13	7545	952	4.87	11	.44	Good
29.	S-29	8497.88	7540	958	4.12	11	.37	Good
30.	S-30	8737.27						No Mining This Area
31.	S-31	8379.02	7425	954	1.52	11	.14	Over First Mined Area
32.	S-32	8435.81	7409	1027	2.19	11	.20	Good
33.	S-33	8484.02	7377	1107	1.97	11	.18	Good
34.	S-34	8396.63	7412	985	1.05	11	.10	Moderate, Large Stumps
35.	S-35	8479.15	7363	1116		11		Over Barrier Pillar
36.	S-36	8452.77	7389	1064 (ft)	.90 (ft)	11 (ft)	.08	Over Panel Pillars
37.	S-37	8402.08	7408	994	.41	11	.04	Poor, Large Stumps & Pillars
38.	4L38	8552.91	7556	997		11		Good but Close to Large Pillars
39.	4L39	8556.45	7564	992		11		Good

	<u>Subsidence Station</u>	<u>Surface Elevation</u>	<u>Mine Elevation</u>	<u>Overburden Depth</u>	<u>Total Subsidence (Smax)</u>	<u>Mining Height (t)</u>	<u>Smax t</u>	<u>Recovery</u>
40.	4L40	8709.09	7558	1151	.65	11 (ft)	.06	Good, but Close to Barrier
41.	4L41	8674.32	7557	1117	1.29	11	.12	Good
42.	4L42	8642.37	7560	1082	2.69	11	.24	Good
43.	4L43	8600.70	7560	1041	2.61	11	.24	Good
44.	4L44	8562.14	7567	995	2.65	11	.24	Good
45.	4L45	8540.47	7571	969	2.69	11	.24	Good
46.	4L46	8535.36	7572	963	2.74	11	.25	Good
47.	4L47	8527.83	7573	955	2.43	11	.22	Good
48.	4L48	8516.05	7579	937	2.70	11	.25	Good
49.	4L49	8503.90	7581	923	1.79	11	.16	Good, but close to Barriers
50.	4L50	8500.68	7582	919	-	11		Good but Close to Barriers
51.	4L51	8564.45	7580	984	1.21	11	.11	Good, but Close To Barriers
52.	1R1W-1	8472.59	7415	1058	1.63	10	.16	Over Barrier Pillar
53.	1R1W-3	8426.33	7427	999	2.66	10	.27	Good
54.	1R1W-5	8400.93	7432	969	4.11	10	.41	Good
55.	1R1W-7	8383.04	7435	948	4.56	10	.46	Good

	<u>Subsidence Station</u>	<u>Surface Elevation</u>	<u>Mine Elevation</u>	<u>Overburden Depth</u>	<u>Total Subsidence (Smax)</u>	<u>Mining Height (t)</u>	<u>Smax t</u>	<u>Recovery</u>
56.	2R1W-1	8413.19	7440	973	1.76	10	.18	Good
57.	2R1W-2	8391.84	7444	948	2.08	10	.21	Good
58.	2R1W-3	8373.93	7438	936	1.70	10	.17	Good
59.	2R1W-4	8362.35	7450	912	3.32	11 (ft)	.30	Good
60.	2R1W-5	8391.04	7478	913	.37	11	.03	Over Barrier Pillar
61.	3R1W-1	8390.84	7462	929	1.08	11	.10	Good
62.	3R1W-2	8387.15	7470	917	.66	11	.06	Good
63.	3R1W-3	8372.00	7482	890	.06	11	.01	Good
64.	3R1W-4	8393.38	7490	903	.03	11	.003	Poor
65.	3R1W-5	8421.94			.11	11	.01	Over Main Entry Pillars
66.	1L2W2-1	8601.87	7362	1240	.23	10	.02	Fair
67.	1L2W2-2	8538.53	7365	1173	.10	10	.01	Poor
68.	1L2W2-3	8492.97	7375	1118	.02	10	.002	First Mined
69.	1L2W1-1	9183.63	7340	1844	0	10		First Mined
70.	1L2W1-2	8898.19	7342	1556	0	10		First Mined
71.	1L2W1-3	8837.46	7350	1487	.27	10	.03	First Mined
72.	1L2W1-4	8663.39	7356	1308	.05	10	.01	Fair
73.	1L2W1-5	8611.82	7370	1242	.46	10	.05	Over Barrier Pillar

	<u>Subsidence Station</u>	<u>Surface Elevation</u>	<u>Mine Elevation</u>	<u>Overburden Depth</u>	<u>Total Subsidence (S<sub>max</sub>)</u>	<u>Mining Height (t)</u>	<u>S<sub>max</sub> t</u>	<u>Recovery</u>
74.	1L4E-1	8339.76	7407	933	.47	8	.06	Good
75.	1L4E-2	8338.92	7409	930	1.53	8	.19	Good
76.	1L4E-3	8030.28	7407	623	2.71	8	.34	Good
77.	1L4E-4	7652.03	7402	250	0	8		Over Barrier Pillar
78.	1L4E-5	7853.28	7407	446	1.84	8	.23	Good
79.	1L4E-6	7663.47	7413	250	0	8		Over Barrier Pillar
80.	2L4E-1	8373.35						
81.	2L4E-2	8371.93						
82.	2L4E-3	8368.11						
83.	1L1	8190.37	7495	695	3.82	11	.35	Over Panel Pillars
84.	1L2	8214.80	7502	713	8.09	11	.74	Good
85.	1L3	8272.40	7507	765	8.25	11	.75	Good
86.	1L4	8410.41	7512	898	6.76	11	.61	Good
87.	2L1	8380.44	7480	900	0	11		Over Barrier Pillar
88.	2L2	8383.72	7485	899	0.29	11	.03	Over Panel Pillars

	<u>Subsidence Station</u>	<u>Surface Elevation</u>	<u>Mine Elevation</u>	<u>Overburden Depth</u>	<u>Total Subsidence (Smax)</u>	<u>Mining Height (t)</u>	<u>Smax t</u>	<u>Recovery</u>
89.	2L3	8390.60	7490	901	2.21	11	.20	Moderate, Few Scattered Pillars
90.	2L4	8394.42	7495	899	4.28	11	.39	Moderate, Few Scattered Pillars
91.	2L5	8392.12	7500	892	0.60	11	.05	Over Barrier Pillar

Ken Payne  
General Manager



**Southern Utah  
Fuel Company**

P.O. Box P  
Salina, Utah 84654  
(801) 529-7428  
(801) 637-4880 (Mine)

Subsidiary of  
Coastal States  
Energy Company

March 12, 1985

Ms. Susan Linner  
Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

Dear Ms. Linner:

The additional information you requested by telephone on March 8, 1985 regarding the 5 East breakout portal is included below:

1. Attached is a partial print of the USGS Accord Lakes quadrangle sheet showing the breakout location. Note that it is on the Fishlake Forest in the W 1/2, NE 1/4, NE 1/4, section 5, T225, R5E.
2. Extraordinary care will be exercised in "holing through" to the surface to minimize downslope casting of material. Material will be pulled back into the mine entries. No pads will be constructed on the slope. The slope gradient is in excess of 100%.
3. The 5 East breakout area will be reclaimed in the same manner as previously committed for other portals broken out from within the mine. Those commitments are addressed in M&RP, Volume 8, February 1984 response to stipulation 817.56-(1-5)-DD and include:

Reclamation of Breakout Areas -- The area to be disturbed at the site is less than one acre (approximately 30 feet square) and a detailed reclamation plan should not be required for a site of this size. However, the regulatory authorities have required that methods be discussed if they are to vary from those proposed for the primary mine portal area in East Spring Canyon, or to show that they do not vary from those proposed for the mine portal area. Such discussion follows.

Sealing -- A breakout seal will be constructed in the breakout area from the inside as shown on the Typical Portal Seal drawing presented in Volume 3 at page 216. The seal will be of a substantial design and constructed of concrete block utilizing a waterproof sealant such that the seal will withstand the hydraulic head that could develop if the entire mine was inundated.

In compliance with 30 CFR 75.1711-2, seals will be installed in all entries as soon as mining is completed and the mine is to be abandoned. Prior to installation, all loose material within three feet of the seal area will be removed from the roof, rib, and floor. The mine entry seals will be made of solid concrete blocks (average minimum compressive strength of 1,800 psi; tested in accordance with A.S.T.M. C-140-70) and mortar (one part cement, three parts sand, and no more than seven gallons of water per sack of cement).

Seals will be installed in the following manner: The seal will be recessed at least 16 inches deep into the rib and 12 inches deep into the floor. No recess will be made into the roof. The blocks will be at least six inches high except on the top course, and eight inches wide. The blocks will be laid and mortared in a transverse pattern. In the bottom course, each block will be laid with the long axis parallel to the rib. The long axis in succeeding courses will be perpendicular to the long axis block in the preceding course. An interlaced pilaster will be constructed in the center. The seals will have a total thickness of 16 inches. The entry will then be backfilled and graded to the slope of the area surrounding the portal entry. For details, see Figures 783.13/A and 783.13/B.

Revegetation -- The 5 East breakout area consists of one portal located on a north-facing slope in the pinyon-juniper and douglas fir community type. This community is very similar to the other portal sites. Vegetation and soils information is contained in M&RP, Volume 5, in "Report of Studies of Vegetation and Soils for Coastal States Energy Company Convulsion Canyon Mine of Southern Utah Fuel Company (SUFco) Sevier County, Utah". The disturbance area at the site will be so small as to create minimal disturbance to the surrounding vegetative communities. The understory grass and forb species of this community type are very similar to that found in the mine portal area and, therefore, no change in the seed mix is recommended for reclaiming this site. After sealing and burial of the breakout opening, scarification of the slope by hand raking will take place. Then the appropriate amounts of the standard seed mix will be planted. Establishment of shrub species will take place by natural reinvasion.

Ms. Susan Linner  
March 12, 1985  
Page 3

This information along with the original January 28, 1985 request for the 5 East portal breakout attached as Exhibit I should be included as part of our M&RP in the back of Volume 8. Included are the seven copies required to update the M&RP.

Sincerely,  
SOUTHERN UTAH FUEL COMPANY



Ken Payne  
V. P. & General Manager

WKS:cfc

Enclosures

xc: Fishlake Forest  
Manti-LaSal Forest  
Sevier County Recorder

Ken Payne  
General Manager

EXHIBIT I



**Southern Utah  
Fuel Company**

P.O. Box P  
Salina, Utah 84654  
(801) 529-7428  
(801) 637-4880 (Mine)

Subsidiary of  
Coastal States  
Energy Company

January 28, 1985

Mr. Ron Daniels  
Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

Dear Mr. Daniels:

We herein request Division approval to construct a new ventilation portal into Quitchupah Canyon at the eastern outcrop of our Southern Utah Fuel Company Mine Number One. We believe the request can be processed and approved as a minor modification to our Mining and Reclamation Plan submittal.

Two maps of SUFCo's underground operations are enclosed. Map One shows the entire underground operation and mine layout. Map Two shows the proposed portal location and details underground entry development required for access to the single opening.

The proposed new portal will be used for ventilation air intake to the easterly section in the mine. In addition, it will also provide increased safety to the miners by allowing for quick escape from the 5 East and 6 East work areas in the event the mine requires evacuation.

Portal construction in this area has been previously addressed as part of the Mining and Reclamation Plan submittal. The portal we are now requesting is in the same location as the one originally shown in Volume 1, Map 1-A. It is also indicated on Map 80-2, Volume 3 at the northern end of the 4 North entries. Underground mine planning has varied from the projections of both Map 1-A and Map 80-2 with regard to panel orientation.

With your approval, work on this project will begin near the end of March 1985. This portal will be constructed in a similar manner to the 3 East and Quitchupah portal projects except that only one opening to the surface will be made. For construction details, see our mine plan submittal, Volume 3, pages 215-219. There are no plans for any surface access to the location or any surface construction activity. We are not expecting any water drainage from the portal since mining activity will include measures to prevent water discharge. Upon abandonment, this portal will be sealed according to the Mining and Reclamation Plan submittal, Volume 3, page 215.

Mr. Ron Daniels  
January 28, 1985  
Page 2

Our archeological consultants performed a cultural resource inventory near to the proposed portal in 1982. The conclusion and recommendations of that inventory indicate a low probability of resource impact. A copy of that report is attached.

Please review and approve this request. If you have any questions or need more information, contact myself or Bob Ochsner.

Yours truly,  
SOUTHERN UTAH FUEL COMPANY



Ken Payne  
V. P. & General Manager

REO:cfc

Enclosures

xc: Sam Rowley, BLM



# ARCHEOLOGICAL - ENVIRONMENTAL RESEARCH CORPORATION

588 West 800 South Bountiful, Utah 84010  
Tel: (801) 292-7061 or 292-9668

January 8, 1982

Subject: Cultural Resource Inventory of a Coal Mine  
Ventilation Breakout in the Little Duncan  
Mountain Locality in Sevier County, Utah.

Project: Southern Utah Fuel Company, Mine Number 1

Project No.: CSEC-82-1

Permit: NA

To: Mr. Keith Welch, Environmental Coordinator,  
Coastal States Energy Company, 411 West  
7200 South, Suite 200, Midvale, Utah 84047

#### GENERAL INFORMATION:

On January 6, 1982, AERC was requested to do a cultural resource inventory of a proposed ventilation portal breakout in the 3 East drift of Southern Utah Fuel Company's Mine Number One. The proposed ventilation portals will be opened from within and are located in Township 21 South, Range 5 East, NE $\frac{1}{4}$  of the SW $\frac{1}{4}$  of the SW $\frac{1}{4}$  of the NE $\frac{1}{4}$  of Section 32 (see map). The area of impact to the surface will be limited to the actual positions of emergence which will consist of three portals, each approximately 10 feet high by 18 feet wide, spaced about 30 feet apart. No new roads are proposed as surface access to these portals.

Snow cover and the steep northeast facing slope precluded examination of breakout area at this time. Surface access to the proposed portal location would be difficult even without snow cover, however, because of the steepness of the slope.

#### CONCLUSION AND RECOMMENDATIONS:

The location of the proposed impact area will be on a steep (35°) northeast facing slope at an elevation of about 7600 feet where the possibility for a cultural resource site, based on previous AERC inventories in adjacent areas, is considered extremely low. In addition, the total surface area of the proposed disturbance will be limited to the size of each portal and will be located within the face of the coal outcrop. For these reasons, AERC does not consider that an inventory evaluation of the actual surfaces is warranted and recommends that a cultural resource clearance be granted to Southern Utah Fuel Company based upon adherence to the following stipulation:

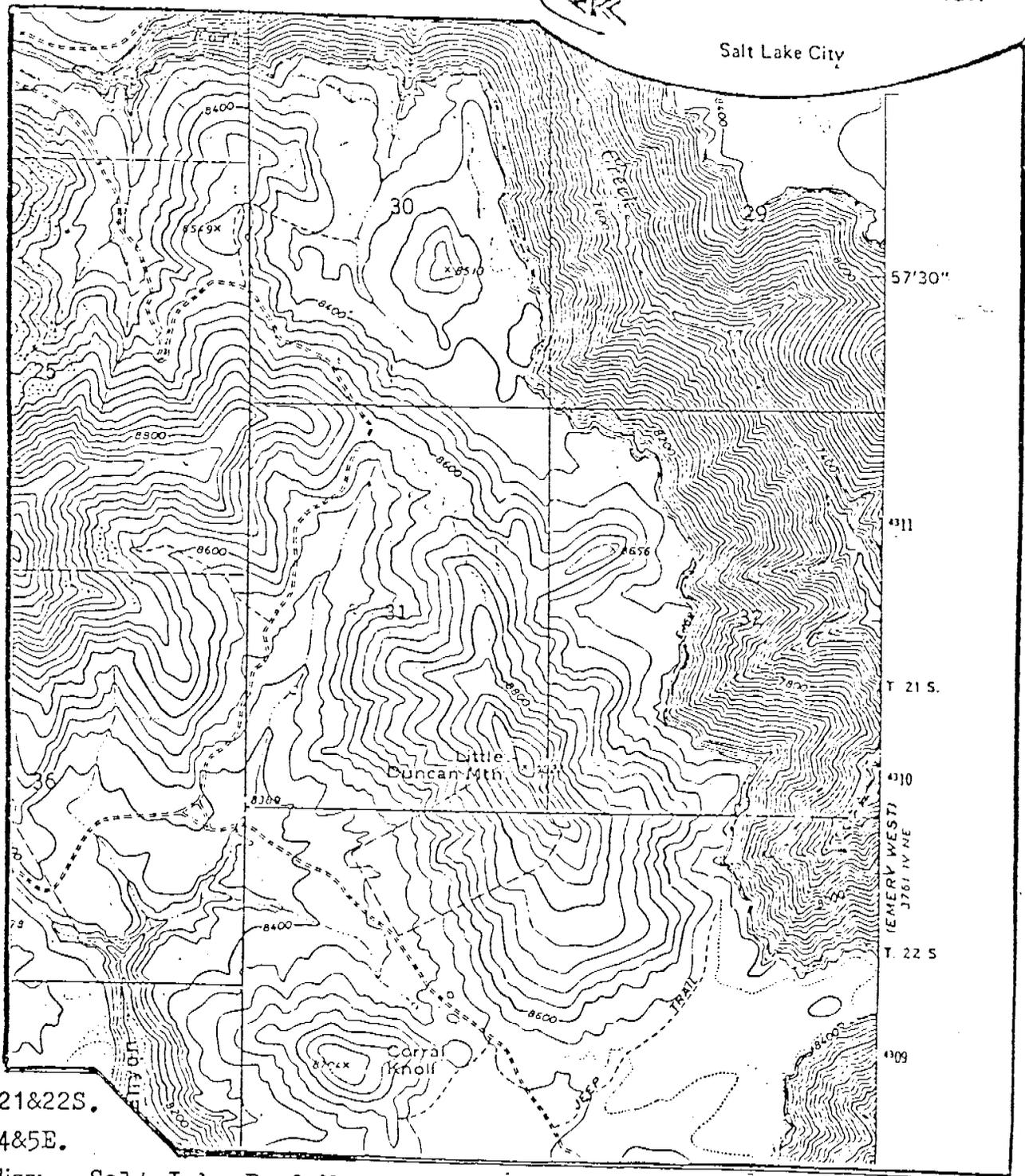
A qualified archeologist is consulted should cultural remains from surface or subsurface deposits be exposed during construction of the portals.

Dennis G. Weder

Dennis G. Weder  
Staff Archeologist

F. R. Hauck, Ph.D. (by dp)  
F. R. Hauck, Ph.D.  
President

Salt Lake City



T. 21&22S.

R. 4&5E.

Meridian: Salt Lake B. & M.

Quad:

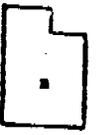
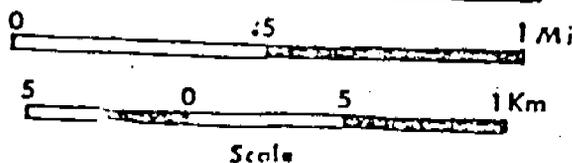
Accord Lakes,  
Utah  
7.5 Minute  
USGS

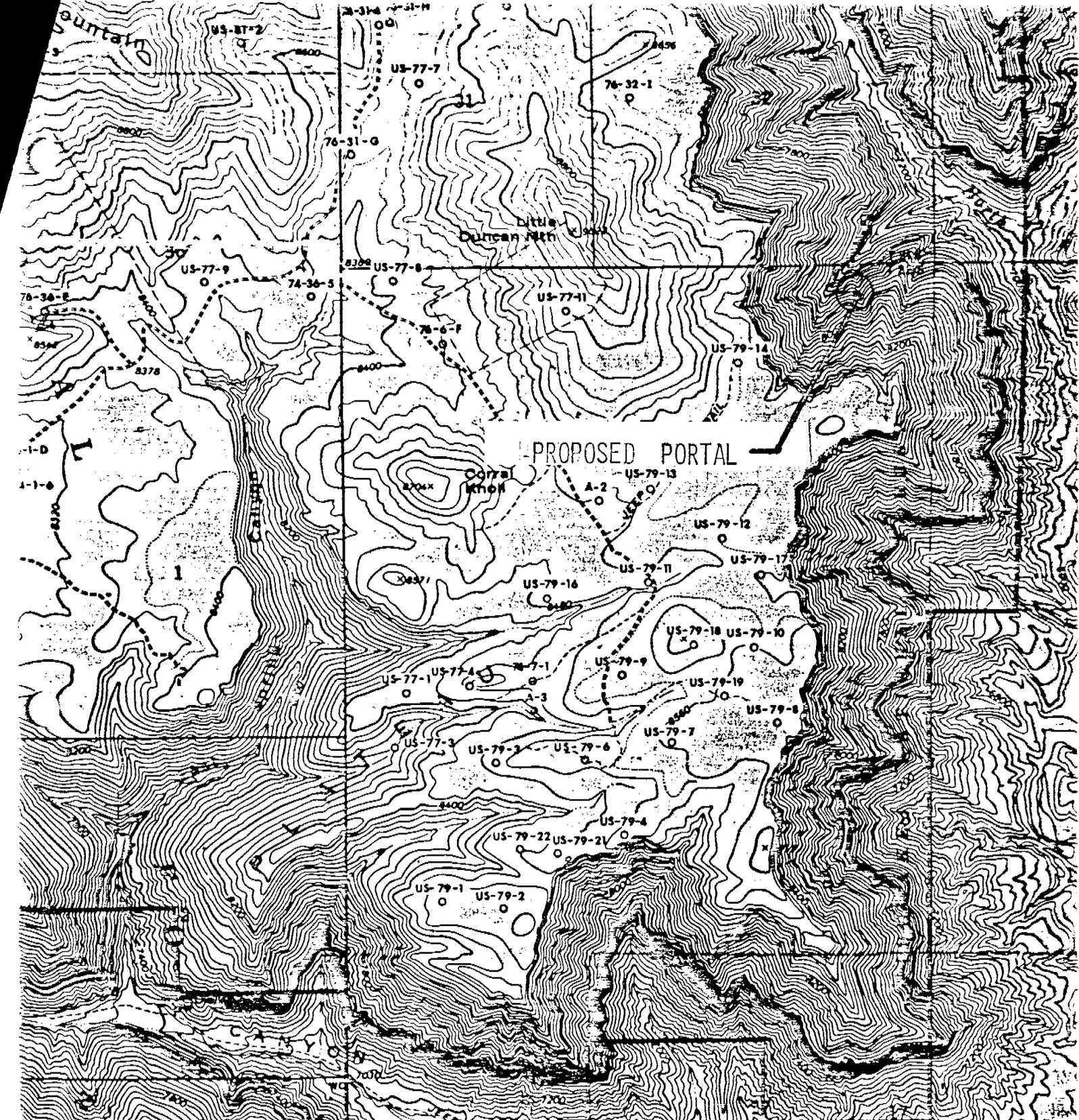
Project: CSEC-82-1  
Series: Central Utah  
Date: 1-8-82

LOCATION OF PROPOSED  
VENTILATION PORTALS,  
SOUTHERN UTAH FUEL COMPANY,  
MINE NUMBER ONE IN THE  
LITTLE DUNCAN MOUNTAIN  
LOCALITY OF  
SEVIER COUNTY, UTAH

Legend:

Proposed  
ventilation  
portal





**SOUTHERN UTAH FUEL CO.  
MINE NUMBER ONE**

**5 EAST BREAKOUT PORTAL LOCATION MAP**

DATE 11 MARCH '85

SCALE 1:24,000

DRAWN BY

DRAWING NO.



**Southern Utah  
Fuel Company**

P.O. Box P  
Salina, Utah 84654  
(801) 529-7428  
(801) 637-4880 (Mine)

**RECEIVED**  
JUL 15 1987

Subsidiary of  
Coastal States  
Energy Company

DIVISION OF  
OIL, GAS & MINING

July 8, 1987

Dr. Dianne Nielson  
Division of Oil, Gas & Mining  
355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

Dear Dr. Nielson:

Enclosed is Southern Utah Fuel Company's Subsidence Report for 1986. This report was not included with the annual monitoring reports submitted during March because the photogrammetric monitoring data was not available at that time from our contractor. We recently received the information from Intermountain Aerial Surveys and have compiled the report.

This subsidence report is the first from SUFCo to utilize both aerial and conventional field surveying methods for subsidence monitoring. Maps are included to show the amount and area subsided by mining.

We understand that your office will distribute the enclosed 14 copies to the State and Federal agencies that require this report.

Sincerely,  
SOUTHERN UTAH FUEL COMPANY



Wesley K. Sorensen  
Chief Engineer

WKS:cfc

Enclosure

xc: Dick Allred - Fishlake Forest  
Carter Reed - Manti LaSal Forest

1986 SUBSIDENCE REPORT  
SOUTHERN UTAH FUEL COMPANY  
MINE NO. 1

by  
Dall Dimick  
Project Engineer

## INTRODUCTION

Southern Utah Fuel Company's subsidence program prior to 1985 utilized conventional surveying techniques to monitor ground movement. The program was modified during 1985 to also include photogrammetric methods. A more comprehensive view of the subsidence has been made using photogrammetry since the amount of surface monitoring points has increased by more than ten times. Future subsidence reports will continue to use both photogrammetric and conventional surveying methods for monitoring ground movements associated with mining.

The entire SUFCo property was flown in 1985 to establish a set of baseline photography. The property was flown again in October 1986. Differences in surface elevation between the first and second flights were ascertained by photogrammetric methods and are incorporated in the following report.

Three maps accompany the report. Map 1 shows the location and density of the monitored surface points. Map 2 is the subsidence map. It shows all the surface control monuments, overburden contours, subsidence contours, and surface tension cracks. Map 3 is an overlay of Map 2 upon a mine map to show the subsidence in relation to the underground workings.

## 1986 SUBSIDENCE

The 1986 subsidence map (Map 2) was updated using the results from a new photogrammetric monitoring program. Over 3,000 surface points, spaced on an approximate 200 ft grid, were monitored for 1986. Surface elevations were compared with the baseline flight (1985) and the differences were plotted on a map. A contour map of the changes was made and used to either update present subsidence areas or define new ones. The location and density of the monitored surface points are shown on Map 1. Previous subsidence as well as new subsidence areas are shown on Map 2.

The photogrammetry defined several other small areas within the SUFCo leasehold which showed movement both up and down. These areas are over unmined blocks and have been field verified as either areas of natural ground movement or areas subject to fluctuations in vegetation (such as cattle grazing). These areas are not subsidence related and are not included on the subsidence maps.

The subsided areas on Map 2 are delineated and labeled by area. A brief description of each follows.

### Area 1

No change from 1985 was detected in this entire area. Seam recovery beneath this area was good with maximum subsidence varying from four feet to eight feet. The eastern end of this area appeared to stabilize in 1978 and the western end in 1985. Mining ceased in this area in 1979.

Area 2

No change from 1985 was detected. Seam recovery was moderate with irregular shaped blocks. Maximum subsidence to date is two feet. Mining ceased in this area in late 1984.

Area 3

A change in the western end of this area was detected in 1986. The subsidence expanded some to the west. Seam recovery was moderate with subcritical areas. Maximum subsidence to date is two feet. Mining ceased in this area in 1983.

Area 4

No change from 1985 was detected. Seam recovery was good with maximum subsidence to date of four feet. Mining ceased in this area in late 1985.

Area 5

No change from 1985 was detected. This area appeared to stabilize in 1984. Seam recovery was good with maximum subsidence of five feet. Mining ceased in this area in late 1981.

Area 6

This is a new subsidence area. The coal seam is being recovered with a long-wall system. Maximum subsidence to date is two feet.

Area 7

This is a new subsidence area. The coal seam was first-mined but the resulting support pillars have failed. The northern end of this area actually began to subside a few years ago and has progressed towards the south. No controls to quantify the subsidence were available until the initiation of the aerial survey. Maximum to date subsidence shown is three feet but the northern end probably has five feet to six feet. Mining ceased in this area in 1984.

Area 8

This is an active subsidence area with changes since 1985. The area has enlarged and the amount of subsidence has increased. The seam recovery is good with maximum subsidence to date of four feet.

DRAW ANGLE SURVEYS

No new draw angle data is available for 1986. There were two new lines of survey monuments for draw angle determination installed in Area 6. They were installed prior to mining and will be monitored once the area begins to stabilize. The monuments are shown on Map 2 near the southwest corner of the area.

### TENSION CRACKS

The location and length of known tension cracks are shown on Map 2. Most cracks in the stable areas have healed with little or no remaining evidence of their existence. Future cracking will be added to the map as the cracks develop and are located. No cracking is apparent in Areas 2, 3 or 6.

### ENVIRONMENTAL EFFECTS OF SUBSIDENCE

Visual observation of the subsidence areas detected no significant effects on the environment and no unnatural changes to the ground water.

### SUMMARY

The 1986 subsidence report was compiled using photogrammetric methods. Subsidence expanded in Areas 3 and 8 with two new locations, Areas 6 and 7, beginning to subside. No change was detected in Areas 1, 2, 4, and 5. Areas 1 and 5 have apparently stabilized. No significant environmental effects were noted.

1987 SUBSIDENCE REPORT  
SOUTHERN UTAH FUEL COMPANY  
MINE NO. 1

by

Dall Dimick  
Project Engineer

## INTRODUCTION

The 1987 subsidence report is an update of previous subsidence information obtained since 1976. A photogrammetric survey was initiated in 1985 for subsidence monitoring. Surface elevations were determined by photogrammetric methods during 1987 and compared to the 1985 base elevations. Differences in elevation, indicating subsidence, were contoured and used to modify the subsidence maps.

Two maps accompany this report. Map 1 is a current mine map with the subsidence map overlain and Map 2 is the main subsidence map. It shows the surface control monuments, overburden contours, subsidence contours, and surface tension cracks.

## 1987 SUBSIDENCE

The 1987 subsidence map (Map 2) was updated using the results from photogrammetric monitoring. There are eight separate subsidence areas shown on the map. A brief description of each follows.

### Area 1

No change from 1986 was detected in this area. There was also no change between 1985 and 1986. This area has probably stabilized. Subsidence varied from eight feet on the eastern end to four feet on the western end. Mining ceased in this area in 1979.

### Area 2

No change from 1986 was detected. Here also there was no change between 1985 and 1986. Seam recovery here was moderate with maximum subsidence to date of two feet. Mining ceased in this area in 1984.

### Area 3

Subsidence in this area has expanded some to the west and south since 1986. Seam recovery was moderate with subcritical areas which are causing some slower residual subsidence. Maximum subsidence is still two feet. Mining ceased in this area in 1983.

#### Area 4

Some residual subsidence has happened in the south-west corner of this area since 1986. The change was slight but it expanded the area of four feet of subsidence. Seam recovery was good with maximum subsidence to date of four feet. Mining ceased in this area in 1985.

#### Area 5

No change from 1986 was detected. This area has appeared to be stable since 1984. Seam recovery was good with maximum subsidence of five feet. Mining ceased in this area in 1981.

#### Area 6

Subsidence in this area has expanded since 1986. The coal seam is being recovered with a longwall system. Maximum subsidence to date is four feet. Active mining will continue through 1988.

#### Area 7

The subsidence in this area has increased since 1986. The coal seam was first-mined but the support pillars have failed from the north towards the south. The subsidence contours are only approximate in the northern end because of a lack of data; i.e. some subsidence had occurred before the 1985 photogrammetric monitoring began. The southern end now shows seven feet of subsidence. Mining ceased here in 1984.

#### Area 8

This is an active subsidence area with changes since 1986. The area has enlarged and now shows one small area with five feet of subsidence. Seam recovery is good and mining will be active until February 1988.

#### DRAW ANGLE SURVEYS

No new draw angle data is available for 1987. The areas where draw angle monitoring monuments are installed (Areas 6 and 8) are still actively subsiding. These monuments will be monitored once the areas begin to stabilize.

## TENSION CRACKS

No new tension cracks were located during the 1986 to 1987 time frame.

### SUMMARY

Southern Utah Fuel's 1987 subsidence report is a continuation of a photogrammetric monitoring program established in 1985. Areas 1, 2, 3, 4, 5, and 8 had been monitored using conventional surveying techniques prior to initiation of the photogrammetric program. Subsidence has expanded in areas 3, 6, 7, and 8. Area 4 had one small location which had some residual subsidence. Areas 1 and 2 have appeared to be stable since 1985 and Area 5 since 1984. No new tension cracks were located.

**RECEIVED**  
JUN 12 1989

DIVISION OF  
OIL, GAS & MINING

**APPLICATION FOR COAL EXPLORATION LICENSE**

**Proposed Exploration Plan**

**for**

**Coal Lease U-63214**

**SOUTHERN UTAH FUEL COMPANY MINE NO. 1**

**Sevier County, Utah**

**A Subsidiary of**

**Coastal States Energy Company**

**June, 1989**

#### APPLICABLE REGULATIONS

This application is submitted pursuant to the Utah Division of Oil, Gas and Mining's Coal Mining and Reclamation Permit Program, specifically Sections UMC 776 and 815, and Federal Regulations 43 CFR 3480. All stipulations given in pages B-5 to B-7 of the Land and Resource Management Plan - Manti-LaSal National Forest are included where appropriate in this application.

#### PERSON SEEKING TO EXPLORE

Vernal J. Mortensen  
Coastal States Energy Company  
175 East 400 South, Suite 800  
Salt Lake City, UT 84111  
(801) 596-7111

#### PERSON RESPONSIBLE FOR EXPLORATION ACTIVITIES

Chris M. Kravits  
Southern Utah Fuel Company  
397 South 800 West  
Salina, UT 84654  
(801) 637-4880

#### RIGHT TO ENTER AREA

The right of the applicant to enter the area for exploration purposes was granted as part of assigning the Federal coal lease to Coastal States Energy Company.

#### DESCRIPTION OF EXPLORATION AREA

##### Location

The area proposed for an exploration permit is located approximately 8 miles west of Emery, Utah and is within the Manti-LaSal National Forest. Lease U-63214 is located both on the Manti-LaSal and Fishlake National Forests but the proposed exploration area is located only on Manti-LaSal National Forest surface. Specifically the proposed exploration will be located two miles due north of Southern Utah Fuel Company's leasehold (see Map 1 in pocket). The

Manti-LaSal National Forest has jurisdiction over the surface and the Bureau of Land Management jurisdiction over the underlying mineral deposits.

The legal description of the lands for which this application for a coal exploration license includes is as follows:

T. 21 S., R. 4 E., Salt Lake Meridan, Utah

Section 12: E1/2 SE1/4; Section 13: E1/2 NE1/4, S1/2; Section 14: E1/2 SW1/4, SE1/4; Section 23: E1/2, E1/2 W1/2; Section 24: All.

T. 21 S., R. 5 E., Salt Lake Meridan, Utah

Section 15: W1/2; Sections 16-21: All; Section 22: W1/2; Section 26: W1/2 NW1/4 SW1/4, SW1/4 SW1/4; Section 27: All; Section 28: N1/2, N1/2 SW1/4, SE1/4 SW1/4; Section 29: E1/2 NE1/4, NE1/4 SE1/4; Section 30: Lot 1, N1/2 NE1/4; Section 33: Lots 2-4, NE1/4, E1/2 NW1/4, NE1/4 SW1/4, N1/2 SE1/4; Section 34: All; Section 35: Lots 1,2, W1/2 NW1/4, N1/2 SW1/4.

T. 22 S., R. 5 E., Salt Lake Median, Utah

Section 3: Lots 1-4, S1/2 N1/2, NE1/4 SW1/4, S1/2 SW1/4, N1/2 SE1/4, SW1/4, SE1/4; Section 4: Lots 1-2, S1/2 NE1/4, SE1/4 SE1/4; Section 9: NE1/4 NE1/4; Section 10: W1/2 NE1/4, NW1/4, N1/2 SW1/4.

Containing 9,905.46 acres, all located in Sevier County, Utah (see Map 1).

Geology

Three geologic formations are exposed in Lease U-63214 - the Mancos Shale, Blackhawk Formation and Price River Formation all of which are of Cretaceous Age (Figure 1).

The coal seams to be tested when drilling are the Upper Hiawatha coal seam (which is extracted from Coastal States Energy Company's SUFCo No. 1 Mine) and the Lower Hiawatha coal seam which is found approximately 30 feet below. Both coal seams occur in the lower portion of the Blackhawk Formation just above the Star Point Sandstone Member (Figure 1).

GENERALIZED STRATIGRAPHIC SECTION  
LEASE U-63214

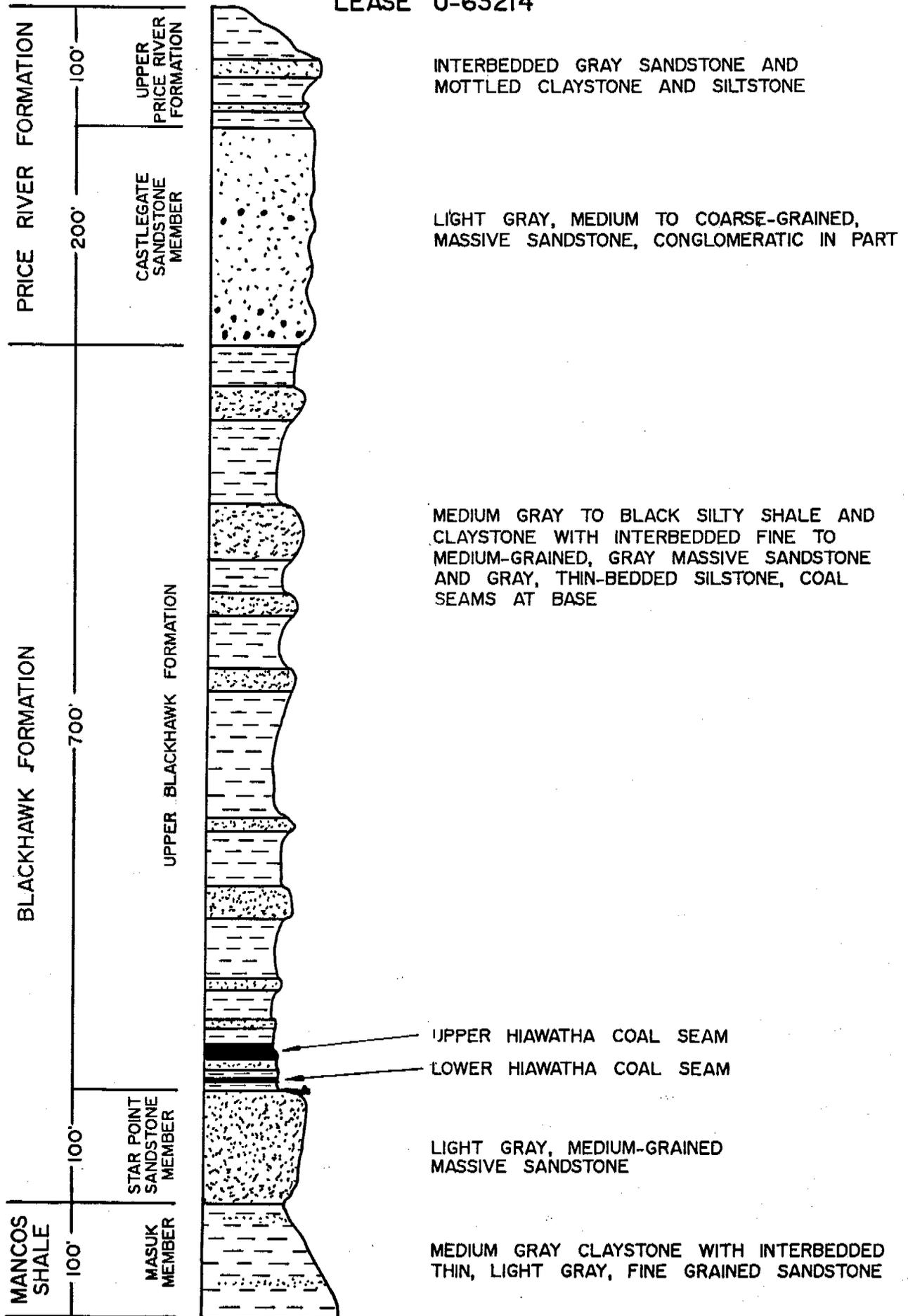


FIGURE 1

The Mancos Shale is the lowest rock unit exposed and consists of gray claystone or silty claystone with thin sandstone layers. It is not resistant to weathering and so forms the lowest slopes on the lease.

The Blackhawk Formation rests above the Mancos Shale and consists of the lower Star Point Sandstone Member and the Upper Blackhawk Formation proper. The Star Point Sandstone Member consists of medium-grained, yellow-gray, massive, cliff-forming sandstone up to 80 feet thick. The Star Point Sandstone is resistant to weathering and so forms the lowest cliff. The Upper Blackhawk Formation consists of yellow to gray, fine to medium-grained sandstone, interbedded with subordinate gray and carbonaceous shale with several thick coal seams toward the base. The Upper Blackhawk Formation is 600-700 feet thick and forms a staircase topography of alternating slopes and cliffs. The Lower Hiawatha and Upper Hiawatha coal seams are found approximately 5 and 40 feet respectively above the top of the Star Point Sandstone Member.

The Price River Formation is the youngest rock sequence found on Lease U-63214 and consists of the basal Castlegate Sandstone Member and the Upper Price River Formation proper. The Castlegate Sandstone Member is a massive, cliff-forming, white to gray, coarse-grained sandstone which weathers brown. It varies from 90 to 200 feet thick and forms the high cliffs on the lease. The Upper Price River Formation consists of interbedded mottled claystones, shales, and thin ledge-forming sandstones. The Castlegate Sandstone, together with the other beds of the Price River Formation, constitutes the cap rock in this area of the Wasatch Plateau.

Rock units in the exploration area strike roughly northeast and dip 2 degrees (about 250 feet per mile) to the northwest. Small displacement faults

(apparent vertical displacement of about three feet or less) and some of greater displacement are probably present as such faults have been encountered in the SUFCo mine workings and extend into the exploration area. These faults strike approximately N 10 to 15 degrees W and are near vertical. Joints occur parallel and normal to the fault trend.

#### Water

Surface drainage on Lease U-63214 includes the north and south forks of Quitchupah Creek and their tributaries and the upper reaches of Box Canyon. The north fork of Quitchupah Creek is the only known perennial stream on the lease. Springs are found in the upper reaches of the north fork of Quitchupah Creek (below Big Ridge) and the upper reaches of Box Canyon. Groundwater may be encountered in the Castlegate Sandstone during drilling but rarely have measurable amounts been found in previous drilling programs.

#### Vegetation

Vegetation is related to surface slope and soil type. On flat bench areas formed from weathered Castlegate Sandstone, there is a combination of sagebrush-grass communities and Ponderosa Pine stands. Also occurring intermixed in these communities are patches of low quality Quaking Aspen, Mountain Mahogany, and Manzanita brush where thicker and better quality soils developed. Ground cover is composed of several native grasses, forbs, and low brush species.

The rolling hills and slopes are covered by an occasional small patch of trees which may include Ponderosa Pine, Douglas-fir, Alpine-fir, Spruce and Aspen. More common are brush species including oak, snowberry, and sagebrush. Grasses and forbs are very sparse and include several native species.

## Wildlife

Lease U-63214 could potentially be inhabited by approximately 102 avifauna, 59 mammalian, 6 amphibian and 16 reptilian species. There are no threatened or endangered species of non-avian vertebrates inhabiting, or known to have inhabited, the area. The only threatened or endangered avian species that may occur in the area would do so only briefly during migration.

## Land Use

Portions of the surface are used as summer graze for cattle by ranchers who have allotments from the Fishlake National Forest. Limited timber harvesting of Ponderosa Pine does occur on the lease. The harvest is limited to the remaining, older, over-matured trees due to the low quality of the trees.

The major recreational use of the surface is for seasonal big game hunting which is generally light and occurs over a month's period each fall. Some snowmobiling also occurs.

Land use in the surrounding area is addressed in the U.S. Forest Service reports, Final Environmental Statement for Land Use Plan - Salina Planning Unit and Manti-LaSal National Forest-Land and Resource Management Plan.

## PRE-WORK MEETING

A pre-work meeting will be conducted at the project location prior to commencement of operations. Those who will attend will include responsible company representatives, drilling and geophysical logging contractors, and Forest Service representatives. Site-specific Forest Service requirements will be discussed at this time.

## DESCRIPTION OF DRILLING OPERATIONS

Drilling is the only type of exploration proposed in this application. The drilling program on Federal Coal Lease U-63214 (proposed locations are plotted on Map 1) as outlined in this application will be undertaken to provide quantitative and qualitative geologic data on the Upper and Lower Hiawatha coal seams in the Blackhawk Formation. The information will be used to assess market potential of the coal seams and aid in the development of an efficient mining plan for the lease. Five (5) drill holes are planned. The program has been designed with full consideration for the surface lands and will be carried out in such a manner as to minimize permanent surface disturbance. Thus, drill holes have been located along existing roads where possible. At those locations where road work is necessary, the program has been designed to minimize excavation and disturbance of vegetation. A road use permit will be obtained from the Forest Service before equipment is transported onto National Forest Service lands.

The licensee will be responsible for all damages to fences, cattleguards, resource improvements, roads and other structures on National Forest System lands which result from operations. The Forest Service will be notified of damages as soon as possible. Section corners or other survey markers, including claim corners in the project area will be located and flagged for preservation prior to start of surface disturbing activities. The removal, displacement or disturbance of markers will be approved by the proper authority. If cultural or paleontological resources are discovered during operations, all operations which may result in disturbance to the resource will cease and the Forest Service will be notified of the discovery. Coastal States Energy acknowledges that operations may be prohibited for times and at places stipulated by the Forest Service.

All surface disturbing activities will be supervised by a responsible representative of Coastal States Energy who is aware of the terms and conditions of the project permits and licenses. A copy of the appropriate permits and licenses will be available for review at the project site. Both the Forest Service and the Bureau of Land Management will be notified 48 hours before heavy equipment is moved onto National Forest System lands and surface-disturbing activities begin. The Forest Service will approve establishment of any campsites and staging areas used in support of this project on National Forest system lands. Coastal States Energy will notify the Forest Service of any proposed alterations to the plan of operations and acknowledges that any changes to the existing plan are subject to Forest Service review and concurrence. Fire suppression equipment will be available to all site preparation, drilling, and geophysical logging personnel working at the project site. Equipment will include at least one shovel or pulaski per crew member consisting of one properly rated fire extinguisher per vehicle and/or internal combustion engine.

All gasoline, diesel and steam-powered equipment will be equipped with effective spark arrestors and mufflers. Spark arrestors will meet Forest Service specifications discussed in the USDA Forest Service Spark Arrestor Guide, June, 1981. In addition, all electrical equipment will be properly insulated to prevent sparks. Coastal States Energy acknowledges it will be held responsible for damage and suppression costs for fires started as a result of operations. Fires will be reported to the Forest Service as soon as possible. Coastal States Energy acknowledges that the Forest Service reserves the right to suspend operations during periods of high fire potential.

Unauthorized off-road vehicular travel will be prohibited. Drilling

operations will be coordinated with grazing permittees to prevent conflicts and harrassment of livestock and wildlife will be prohibited.

One drilling rig capable of drilling to 1500 foot depths will be used and will be equipped with air compressor, mist injector and mud pump. Support vehicles will include a drill steel trailer, and pickup truck and a water truck if needed. Drill sites will be prepared in the following manner: vegetation will be cleared from a 40 by 60 foot area and topsoil will be stockpiled separately for later use in reclamation at a location where loss and contamination will be minimized. A mud pit will be dug if a portable pit is not practical. The pits, if used, will not be used for disposal of garbage, trash or other refuse. All trash, garbage and other refuse will be properly contained on the project site prior to disposal.

Drilling will start by setting casing to the Castlegate Sandstone and will be done as follows. A 10 1/2-inch hole opener will drill through the alluvium and soft soil for installation and grouting of a 10 inch surface casing. A smaller hole (about 7 1/2-inch) will then be drilled to the Castlegate Sandstone and 6 5/8 to 7 inch diameter subsurface casing will be set to the top of the Castlegate Sandstone. The remainder of the drilling operation is as follows:

- 1) Change to 5 5/8 inch tricone rock bit.
- 2) Drill to core point with air or air-mist injection.
- 3) Core 30 feet of roof, coal seam, and 5 feet of floor with 15 or 20 feet x 3 inch core barrel.
- 4) Ream cored interval with 5 5/8 inch tricone rock bit.
- 5) Drill about 100 feet to total depth (into Star Point Sandstone).
- 6) Geophysically log hole.

- 7) Complete hole by either plugging or setting casing for a water monitoring well.

Drilling operations will run 24 hours per day to maintain hole conditions and ensure against core loss.

Depending on the finalized ground water monitoring program a shallow step-off well may be drilled at some locations to monitor shallow aquifers. Such wells, if drilled, will be completed to comply with applicable Federal and State guidelines. All significant water encountered during drilling will be reported to the Forest Service, including the depth and the formation in which it was encountered and an estimate of flow. A list of drill hole locations and depths is given in Table 1.

Drilling will be done with air until water is encountered, then air-mist injection will be used. If necessary, either to maintain hole or should excess water be encountered, a water-mud slurry will be used. If a water-mud slurry is necessary, water will be hauled from an approved source by truck. Use of air-mist injection is preferred as it will minimize water usage and so minimize water truck travel on location roads. Use of water for drilling thus cannot be estimated. At this time it is proposed that any water needed for drilling will be obtained from the North Fork of Quitcupah Creek. Coastal States Energy acknowledges that the location of the water diversion, since on National Forest System lands is subject to Forest System review and approval. The diversion for obtaining water will be done by temporarily damming the creek with hay bales to create a small pool from which water can be pumped. Water needed in support of the drilling operations will be properly and legally obtained according to State water laws. The hay bales will be removed and the creek replaced to its approximate original configuration when the project area is reclaimed.

Table 1

<u>Drill Hole Number</u>	<u>Location</u>	<u>Surface Elevation</u>	<u>Total Depth</u>
	(T.21s., R.5E., SLM)		
89-18-1	Sec. 18: SE 1/4, SE 1/4, NE 1/4	8410'	1290'
89-20-1	Sec. 20: NE 1/4, SE 1/4, NW 1/4	8280'	1040'
89-20-2	Sec. 20: NE 1/4 NE 1/4, SE 1/4	8360'	1060'
89-21-1	Sec. 21: NW 1/4, SW 1/4, NE 1/4	8400'	1030'
89-16-1	Sec. 16: SE 1/4, SE 1/4, NE 1/4	8380'	1060'

Less than 250 tons of coal will be removed during the exploration program (all as cores) and will be used only for chemical analyses for Coastal States Energy's own use. Coastal States Energy will retain the drill hole remote logs and drill cores for a minimum of one year and make these materials available to representatives of the appropriate government agencies according to 30 CFR 3484. Coastal States Energy will remove all drilling equipment and other vehicles from Forest Service lands upon completion of the drilling program.

An exploration report will be submitted to the Bureau of Land Management pursuant to 43 CFR 3485. This report will contain general drilling program information, a map of drill hole locations, geophysical logs of the drill holes, copies of coal analyses, status of reclamation and any other information requested.

#### ARCHEOLOGICAL SURVEY

An archaeological survey will be performed by a professional archaeological consultant on drill sites and access routes prior to issuance of the Coal Exploration License. Preferably the archaeological consultant will be present during the drill site tour held prior to issuance of the license.

No known archaeological resources nor sites on the National Register of Historic Places are thought to be located at any of the proposed drill sites or access roads. Should cultural or paleontological resources be discovered during operations, all operations which may result in disturbance of the resource will cease and the Forest Service will be notified of the discovery.

#### PROTECTION OF THE ENVIRONMENT

The preservation of the environment will be of concern through all phases of this drilling program. All drill sites are planned to minimize disturbance to

the terrain. Pits will be used to contain all water, drill cuttings, and mud used in drilling so that these materials do not run into stream drainages. A road use permit will be acquired and its stipulations followed throughout the exploration program. Unauthorized off-road vehicular travel will not be allowed. Roads will not be used when wet and susceptible to damage. Coastal States Energy acknowledges responsibility for repair of damages to roads which are caused by their drilling operations. All traffic will maintain safe speeds commensurate with existing road conditions. Roads will be watered if dust becomes a problem or if excessive loss of road material occurs. Heavy equipment will not be transported on roads specified by the Forest Service during holiday weekends and the opening weekend of the regular big game hunting seasons.

All ground water aquifers will be protected by cementing the drill hole in compliance with 43 CFR 3484 and Utah Mining Code (UMC) 817, unless it is deemed necessary to convert all or some of the holes to water monitoring wells. In the event that water monitoring wells are necessary, an addendum to this application will be submitted describing hole completion procedures.

Throughout all phases of this drilling program, the personnel of the District Ranger's office of the U.S. Forest Service will be informed of all drilling and reclamation progress.

No burning will be allowed during the exploration program. The operator will clean-up and remove all trash, garbage, flagging and other such materials from Forest Service lands upon completion of the drilling program.

## SURFACE RECLAMATION

Reclamation will be performed as contemporaneously as possible with drilling. Once the drill has reached total depth and the hole is geophysically logged, the holes will be completed depending on their final use. Completion may be simple plugging of the hole for its total depth or installation of casing for ground water monitoring purposes. In any case completion of holes will follow applicable government guidelines. After equipment has been removed, the drill site will be cleaned and all contaminated soil will be placed in the mud pit or removed. Liquids in the pits will be allowed to evaporate prior to backfilling with the excavated material. Mud pits will be enclosed by a 4-strand barbed wire fence while left to dry. Stockpiled topsoil will then be spread such that the disturbed area is replaced to approximate original contour and re-established of vegetation is possible. The area will be raked with a power rake and the seed mixture will be sown with a hand spreader. Seed will be buried by a drag attached to a pickup. Should drilling take place during the dry summer months, seeding may be postponed until the fall season. The seed mixture used will be blended by the U.S. Forest Service and applied according to their specified rate.

Any roads to be obliterated will be reclaimed by ripping the surface followed by the applicable steps used in reclaiming the drill sites, i.e. replacing the disturbed area to approximate original contour, replacing stockpiled topsoil and seeding with the specified seed mix. Water diversion structures, if needed, will be constructed as specified by the Forest Service. All disturbed drainages will be replaced to their approximate original configuration when the project area is reclaimed.

All reclamation activities will be supervised by a responsible representative of Coastal States Energy who is aware of the terms and conditions of the project permits and licenses. A copy of the appropriate permits and licenses will be available for review at the project site. Coastal States Energy will notify the Forest Service of any proposed alterations to the plan of operations and acknowledges that any changes in the existing plan are subject to Forest Service review and concurrence.

Fire suppression equipment will be available to all personnel performing reclamation work at the project site. Equipment will include one shovel or pulaski per crew member and one properly rated fire extinguisher per vehicle and/or internal combustion engine. All gasoline, diesel and steam-powered equipment will be equipped with effective spark arrestors and mufflers. Spark arrestors must meet Forest Service specifications discussed in the USDA Forest Service Spark Arrestor Guide, June, 1981. In addition, all electrical equipment will be properly insulated to prevent sparks. Coastal States Energy acknowledges that it will be held responsible for damage and suppression costs for fires started as a result of operations. Fires will be reported to the Forest Service as soon as possible. The Forest Service reserves the right to suspend operations during periods of high fire potential. Unauthorized off-road vehicular travel will be prohibited. Reclamation activities may be prohibited at times and places stipulated by the Forest Service. Gates will be kept closed unless otherwise notified. Coastal States Energy recognizes that it will be held responsible for all damages to fences, cattleguards, resource improvements, roads and other structures on National Forest System lands which result from operations. The Forest Service will be notified of damages as soon as possible.

## ESTIMATED TIME TABLE

Actual dates given in the time table (Table 2) may be adjusted as Coastal States Energy will start operations as soon as possible after the permit is issued. It is estimated drilling and hole completion will require four days per hole. At this time, dirt work is planned to start July 10 and drilling to start July 17.



Joe Hsilfrich, SRA, Utah

Frank Friedecky, AVS Clearinghouse

ECT: Recommendation for Coastal States Energy Co.  
Application Number ACT041002

August 30, 1989

Clearinghouse recommends issue for Coastal States Energy Co.  
Application Number ACT041002.

If there are any questions, please contact the AVS Clearinghouse  
at 1-800-327-5245.

Gary FriL: Albuquerque FO

ID 20:DO1370025:08111]

for 152G22 10:45 MDT 31-Aug-89 Message 615-550 [3] \* Read \*

on?:  
ne ]

E X H I B I T VI  
PROPOSED NEWSPAPER ADVERTISEMENT  
FOR PERMIT MODIFICATION

Coastal States Energy Company, 175 East 400 South, Suite 800, Salt Lake City, Utah, a wholly owned subsidiary of the Coastal Corporation, has filed with the Division of Oil, Gas and Mining an application for permit modification for its Southern Utah Fuel Company (SUFCo) underground coal mine. The Division of Oil, Gas and Mining has determined the Mine Plan submitted for the permit modification to be apparently complete.

The Quitchupah Lease Tract is located 30 miles from Salina, Utah. The permit area includes Federal Coal Lease U-63214 and is described as follows:

- T. 21 S., R. 4 E, SLM, Utah  
Sec. 12, E1/2 SE1/4; Sec. 13, E1/2 NE1/4, S1/2; Sec. 14, E1/2 SW1/4, SE1/4; Sec. 23, E1/2, E1/2 W1/2; Sec. 24, all.
  
- T. 21 S., R. 5 E, SLM, Utah  
Sec. 15, W1/2; Secs. 16-21, all; Sec. 22, W1/2; Sec. 26, W1/2 NW1/4 SW1/4, SW1/4 SW1/4; Sec. 27, all; Sec. 28, N1/2, N1/2 SW1/4, SE1/4 SW1/4, SE1/4; Sec. 29, E1/2 NE1/4, NE1/4 SE1/4; Sec. 30, Lot 1, N1/2 NE1/4; Sec. 33, Lots 2-4, NE1/4, E1/2 NW1/4, NE1/4 SW1/4, N1/2 SE1/4; Sec. 34, all; Sec. 35, lots 1, 2, W1/2 NW1/4, N1/2 SW1/4.
  
- T. 22 S., R. 5 E., SLM Utah  
Sec. 3, lots 1-4, S1/2 N1/2, NE1/4 SW1/4, S1/2 SW1/4, N1/2 SE1/4, SW1/4 SE1/4; Sec. 4, lots 1, 2, S1/2 NE1/4, SE1/4 SE1/4; Sec. 9, NE1/4 NE1/4; Sec. 10, W1/2 NE1/4, NW1/4, N1/2 SW1/4.

Containing 9,905.46 Acres

Coal will be accessed through the existing SUFCo mine which has been active since 1941 and has operated under permit ACT-041-002 since August 26, 1987.

The PAP was filed, and this notice is being published, to comply with the Surface Mining Control and Reclamation Act of 1977 and State and Federal regulations promulgated to said Act.

A copy of the PAP is available for public inspection at the Sevier County Courthouse, 250 North Main Street, Richfield, Utah, and at the Division of Oil, Gas and Mining offices located at 335 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah.

Written comments or requests for informal conferences on the application may be submitted to: The State of Utah Department of Natural Resources, Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, UT 84180-1203

Coastal States Energy Company would appreciate copies of any comments submitted to the Division of Oil, Gas and Mining.